

# Faiture of Exchange Entitlement's Theory of Famine

## A Response

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*The sudden collapse into starvation that has been identified with the famine condition, the author argues, is only the final phase of famine when the stigmata of starvation become visual and the victims have collapsed. Famine is not, however, an event marked by the death of the victim. The basic failure in the understanding of famine is the inability to recognise the political, social and economic determinants that mark the onset of the process. We need, therefore, to redefine famine and identify the various factors, political, social, psychological and economic, that operate to keep large classes in the population under continuous pressure.*

*The first part of the essay examines the inadequacy of current definitions of famine and suggests the need to question them. The available literature, including government records on famine as well as codes and manuals of relief administration, reflects the government view that famines are caused by the collapse of the network of social transactions and services, wages and assets, including the varied services and skills of the family unit or the village. The exchange entitlement theory is thus implicit in the literature and consequently does not represent an advance. The second part of the essay is devoted to its consideration.*

[The first part of the paper is published below. The second part will appear next week.]

### I

THIS paper is a response to Amartya Sen's work on famines<sup>1</sup> and the theoretical framework he has offered for the understanding of the phenomenon. Sen's theoretical framework rests on a definition of famine which, with minor adaptations, is derived from current definitions. The determinants in these definitions are demographic and biological. The social and economic determinants appear to be ignored.

I propose to examine, in the first part of my essay, the inadequacy of current definitions and indicate the need to question them. In so far as Sen's theoretical framework acquiesces in existing definitions, it appears to have a limited validity. A study of the available literature including government records on famine as well as codes and manuals of relief administration of India offers evidence of a coherent theoretical framework.<sup>2</sup> Primarily, these records reflect the government view that famines are caused by the collapse of the network of exchange of social transactions and services, wages and assets including the varied services and skills of the family unit or the village. In other words, the exchange entitlement theory is implicit in the literature and consequently it does not represent an advance. I propose to devote the second part of this essay to its consideration.

For the first part, I will draw upon conclusions I have arrived at in the course of field work among communities affected by scarcity and famine in different parts of India. I will also refer to material collected during library work here and in the United States.

Let me re-state what is famine according to Sen. First, Sen defines famines as "a particularly virulent manifestation of starvation causing widespread death".<sup>3</sup> He reinforces this specific association with death by referring to the definition of Masfield. "On balance it seems clear that any satisfactory definition of famine must provide that food

shortage is either widespread or extreme if not both, and that the degree of extremity is best measured by human mortality from starvation."<sup>4</sup> "In statistical terms it can be defined as a severe shortage of food accompanied by a significant increase in the local or regional death rate" and so on.

These definitions are only a variant of the one offered in the "Encyclopaedia of Social Sciences":

True famine is a shortage of total food so extreme and protracted as to result in widespread persisting hunger, notable emaciation in many of the affected population, and a considerable elevation of community death rate attributable at least in part to deaths from starvation.<sup>5</sup>

Sen also affirms that such mortality is an event in time that occurs suddenly. "In analysing starvation in general, it is important to make clear distinctions between three different issues: Lowness of the typical level of food consumption, declining trend of food consumption and a sudden collapse of the level of food consumption. Famine is chiefly a problem of third kind, and while it can be obviously helped by the first two features, it often does not work that way."<sup>6</sup>

I find it necessary to question the definition as well as the explanation.

Let me also briefly summarise Sen's position on the causes of famine. Sen, as far as I have understood, accounts for it in this way. In an economy with private ownership and exchange in the form of trade (exchange with others) and production (exchange with nature) it can be characterised as depending on two parameters, namely the endowment of the person, the ownership bundle and the exchange-entitlement mapping (the function that specifies the set of alternative commodity bundles that the person can command respectively for each endowment bundle).<sup>7</sup> He goes on to illustrate: For example a peasant has his land, his labour power and a few other resources which together make up his endowment. Starting from that endowment he can produce a bundle of food that

may be his or by selling his labour power he can get a wage and with it buy commodities, including food or he can grow cash crops and with that buy food and other commodities. There are many other possibilities. The exchange entitlement mapping specifies the exchange entitlement set of alternative commodity bundles respectively for each endowment bundle.

A person can be plunged into starvation if his endowment collapses either through a fall in the endowment bundle or through an unfavourable shift in the entitlement mapping. The exchange entitlement mapping will depend on the legal, political, economic and social characteristics of the society in question and the person's position in it.<sup>8</sup>

Particularly significant are the references to economic status and modes of production where Sen works out possibilities of starvation of such categories as the landless labourer, peasant and large farmer and concludes that similar contracts can be worked out outside agriculture as well.<sup>9</sup>

He points out that "the phase of economic development after the emergence of a large class of wage labourers but before the development of social security arrangements is potentially a deeply vulnerable one".<sup>10</sup>

Sen is keen to establish the limitations of the 'income-centered view' which as is widely known, has held the field till now.

Even in those circumstances in which income does provide command, it offers only a partial picture of the entitlement pattern.<sup>11</sup>

Finally, he offers his entitlement mapping as a general theory which can take in a whole range of possibilities:

The focus that emerges from this monograph looks at a different direction, namely the need to view the food problem as a relation between people and food in terms of a network of entitlement relations. Some of the relations are simple (e.g. the peasants' entitlement to the food grown by him), while others are more complex (e.g. the nomad's entitlement to grain through exchange of

animals, leading to a net gain in calories). Some involve the use of the market mechanism (e.g., selling craft products to buy food), while others depend on public policy (e.g., employment benefits, or relief in langarkhanas and destitution camps). Some are affected by macro economic developments (e.g., demand pull inflation), while others deal with local calamities (e.g., regional slump) or with micro-economic failures (e.g., denial of fishing rights to a particular community in a particular region). Some are much influenced by speculative activities, while others are not.<sup>12</sup>

As stated earlier, in this first part, I will examine the definitions of famine in use leaving the discussion of the theory of entitlement with reference to the literature, to the second.

I find the definition unsatisfactory on two grounds. The first is fundamental. I regard mortality as only the biological culmination of the starvation process. Famine is not a mere biological process. It is a politico-socio-economic process and in my view the culmination of that process comes well before the slide into disease and death. Further, the available evidence indicates that mortality can be retarded or halted, due to state intervention or other reasons. Therefore, I hope to establish that mortality is not a necessary condition of famine.

The second is that the famine process cannot be defined with reference to the victims of starvation alone. It is a process in which benefits accrue to one section of the community while losses flow to the other. To define it only with reference to the victims, to my mind obscures the study of the process.

First, I will argue, with support from studies on the biology of famine, that starvation is a process and that it is long-drawn, hardly sudden. Secondly, I will establish that the biological process has a socio-economic dimension; that such a process has clearly marked phases. The phases correspond with biological changes and deterioration in the health of the affected community and socio-economically by transfer of assets from victim to beneficiary. The socio-economic process is completed with the loss of all of the victim's assets including his ability to labour.

Thirdly, I will point out by referring to relief manuals, famine codes, etc, that the state does not appear to intervene until the third and irreversible phase.

Finally, 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, they have a limited validity. I will, therefore, conclude that the definitions in use in so far as they hinge on the elevation of mortality may be set aside. Consequently, Sen's work which is based on such a definition is inadequate.

To establish that a famine is a long-drawn biological process I wish to draw upon the

contributions of nutrition scientists, medical men attending on famine victims as well as clinical studies on volunteers subjected to starvation. Together these studies demonstrate that the individual passes from a well-nourished stage through successive stages of starvation.<sup>13</sup> Far more significant, that the body can adapt itself at a low equilibrium—a plateauing effect that can endure for weeks to several months;<sup>14</sup> that starvation does not enter the irreversible stage until the victim has lost nearly one-third of his body weight;<sup>15</sup> That at that point starvation or disease can cause mortality;<sup>16</sup> that these changes in the biological condition are accompanied by changes in mental states, depression, apathy, etc;<sup>17</sup> and, as famine intensifies, in some cases, to mental derangement and even suicide.

That in societies where there is no poor relief individuals do succumb to starvation is well known. Such a condition is not described as famine. Famine is a condition that affects large numbers of people within a recognisable, spatial unit such as a village, a country or an entire geographical region. We, therefore, need to know of the duration of the biological process that affects entire communities. The work of Burger, Sandstead, *et al* on famine in the Netherlands during World War II is useful for an understanding of famine as a condition that affects a region or large parts of a country near-simultaneously.<sup>18</sup> The study documents the biological process even at its onset, and maps its duration. Further, it offers a paradigm of the entire politico-economic process—the pressure exerted by the one side and the adaptations and responses of the other.

The study of the pressure as well as of the responses begins even in 1940 when the Dutch imposed food rationing on foodstuffs and extended it to rationing of potatoes as early as 1941.

After occupying the Netherlands, the Germans requisitioned all stocks of foodstuffs for their forces. They did not halt there. They began to export the produce from arable land which by the end of the war covered nearly 60 per cent of the land. The stratagems of the Dutch included the breaking up of pasture land, the slaughter of all pigs and poultry; but there were added political pressures. As, for example, when the Germans deported Dutch prisoners of war, the Dutch responded with strikes. The Germans in turn withheld the better ration. In 1944, when the Dutch government in London ordered a general strike the Germans responded with an embargo on food supplies to Western Holland. "Even tulip bulbs were rationed, the young went out foraging. Many died by the wayside while many elderly died in their beds." Death as noted by the medical teams came only to those who did not have their wits about them—"the vagrant poor"

Unfortunately, although it has been recorded that those who died in the Nether-

lands were 'vagrants', we know little about whether they were vagrants at the onset of war-famine nor how they were rendered so.

But the evidence of the teams of doctors in the Netherlands enables us to establish that an entire community can pass through the different stages of the process at approximately the same lengths of time. Further mortality, it was clinically noted, occurred years after the starvation process had set in.

The Netherlands was occupied by Germany in May 1940. The allied forces entered Holland in May 1945. Consumption of food according to data supplied by the Board of Agriculture, dropped from 3,000 calories to 1,800 calories by mid-1941, fluctuated thereafter around 1,700 calories and dropped further to 1,600 calories in September 1944, coming down to 800 calories in 1945.<sup>14</sup>

Tables 1 to 6 quantify the fall in consumption of food. Table 1 details the protein-fat-carbohydrate break-up in the decline in consumption. As expected, the decline in consumption of carbohydrates is less drastic and it forms a higher proportion of the famine stricken community's diet. Table 2 shows the decline in the annual consumption of calories during the five year period and it establishes that the decline from the previous year is sharper in 1941 than in 1945 when

TABLE 1: CONSUMPTION OF FOOD IN THE NETHERLANDS UNDER GERMAN OCCUPATION—PROTEIN, FAT, CARBOHYDRATE BREAK-UP (in Kg)

	May 1940—Normal	Decrease	1945
Protein	100 (30 animal)	200 (70 animal)	100 (40 animal)
Fat	72	153	81
Carbohydrate	590	825	235

Source for Tables 1 to 6; Burger, Sandstead, *et al*.

TABLE 2: CONSUMPTION OF FOOD IN THE NETHERLANDS UNDER GERMAN OCCUPATION—DECLINE IN CONSUMPTION OF CALORIES

	Calories Per Year
Pre-War years	1,000,000
1940	900,000
1941	685,000
1942	622,000
1943	622,000
1944	500,000
1945	568,000

TABLE 3: INCREASE IN MORTALITY—THE NETHERLANDS UNDER GERMAN OCCUPATION

	1940	1944
General mortality	14	
General mortality (without war victims)	8	21
Infant mortality	16	22
Tuberculosis mortality	9	88

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become too weak for food and fuel gathering activities. Stratagems to prevent death now become imperative. These can include acceptance of slavery, conversion to other religions, permanent migration as indentured labour. What is significant is that a large number of families resort to one identical stratagem.<sup>25</sup>

Such stratagems can be institutionalised. They are referred to, in folk history, as exemplifying the famine. Jackson writing on nineteenth century famines among the Akamba tribe in Kenya, quotes an informant:

If I walked to the edge of my homestead I could point to the places where families came together during famine. When Kitonga was alive (that is between 1840 and 1860) he was known for his large family. Part of his family came through the pressing down of *Mayua* the famines.

Very important, Jackson distinguishes between "processes of change in the family that are routine originating from traditional cultural impulses and changes that can be traceable to famine". These famine-stricken families formed alliances with kin who might offer temporary refuge. The destitute family, welcomed into the new household often became the personnel who formed the "guards who could raid or repulse raiders from surrounding villages."<sup>26</sup>

But where they fail, the community is spatially, socially and economically dismembered. They are cut adrift, wandering aimlessly, to forage in dustbins, or beg by the wayside. Visually they are emaciated and diseases begin to overwhelm them. They have now moved into the final phase 'morbidity'. These then are the three phases of famine. The three phases have been amply documented in the Dutch and other famines.

Yet social scientists have evaded the implications in their analyses of famine.

Let me now turn to the accounts of famine by nutritionists, scientists, administrators and the media, and it will be perceived that they merely refer to the third phase. Let me demonstrate: here is Aykroyd, the well known nutritionist on the Bengal famine victims.<sup>27</sup>

Feeling that the word 'famine' was being too lightly used, I opened my contribution (to the seminar) with something I had written twenty-five years before about the Bengal Famine of 1943: "Many of the patients in the famine hospitals were picked up in a state of extreme weakness and collapse, often on the point of death. They were for the most part emaciated to such a degree that the description 'living skeletons' was justifiable. Many suffered from mental disorientation showing a very marked degree of apathy and indifference to their surroundings. When taken to hospital, such patients made little effort to help themselves and received medical attention with an indifference which sometimes amounted to passive obstruction. They did not care how dirty and naked they were. These with famine diarrhoea would repeatedly soil their beds and pay no attention to the protests of the attendants. In a few cases maniacal symptoms were present. The mental state of many starving destitutes indeed sometimes disconcerted workers in famine hospitals, who were not aware that it was a pathological situation induced by starvation.

Consider the accounts of famine in historical times as well as in the present. Famine has been depicted variously as "disorganisation and deterioration of the family and the society",<sup>28</sup> "mental disorientation, a disintegration of the personality with distressing results",<sup>29</sup> "unusual wandering of the people",<sup>30</sup> and "breakdown of normal human relations and deviations from customs and mores".<sup>31</sup> In general, famine has been known over the ages as a period

of violation of normal human ties, during which cannibalism, necrophagia and such other practices have been reported.

"The disintegration of the human personality with distressing results", or the "survival of the fittest"<sup>32</sup> type of activities that dominate the discussions of famine, true as they are, appear to me to have a limited validity. Limited, because a community which has suffered mental disorientation seems to be a community in its death throes. To ignore the long struggle, "the long marches, the anxiety and the distress",<sup>33</sup> that precedes it is to my mind to ignore famine itself.

Consequently, the studies we have today are not of the entire famine process at all, but only of its terminal phase. It is significant that the Famine Code of India (1883) as well as the Scarcity Manuals of the States<sup>34</sup> at the present time, list "unusual movement of herds and people" and "aimless wandering among the premonitory signs of famine. As I have tried to argue, the 'aimless wandering' comes only in the final phases of famine. The noting of these as premonitory signs offer evidence that it is only at this phase, the state is prepared to intervene and start relief operations. That these relief operations are often ineffectual and do not halt the biological process is well known.

The state as well as the do-gooders, the voluntary agencies do not enter the arena, until the process is resolved against the victims. The famine accounts we have today, begin even with the moment of state intervention.

I now turn to the chapter in the "International Encyclopaedia of Social Sciences" which should enable us to understand how the definition (quoted at the beginning of this paper) has been arrived at.<sup>35</sup>

TABLE 6. THE NETHERLANDS UNDER GERMAN OCCUPATION—WEIGHT OF 20 STARVATION PATIENTS

Sex	Age (Years)	Height (m)	Ideal Weight (kg)	1940 Weight (kg)	Lowest Weight (kg)	August 5, 1945 Weight (kg)	Oedema (kg)	Shortage of Weight		Weight Loss	
								(kg)	(Per Cent)	(kg)	(Per Cent)
Male	73	1.71	71.0	72	52.3	64.0	7.2	19.7	28	20.7	29
Male	17	1.80	71.8	60	53.6	73.0	0.4	18.2	25	6.4	—
Male	23	1.84	75.8	80	57.5	80.0	—	18.3	24	22.5	—
Male	39	1.68	67.0	55	40.3	61.0	13.7	26.7	40	14.7	27
Male	70	1.72	73.0	70	53.6	62.5	5.8	19.4	27	16.4	23
Male	77	1.66	67.0	75	43.5	58.0	3.6	23.5	35	31.5	42
Male	64	1.63	65.6	70	47.5	63.5	—	18.1	28	22.5	32
Male	64	1.69	68.9	?	42.1	55.5	5.7	25.8	39	—	—
Male	47	1.74	74.2	64	52.0	65.0	4.5	22.2	30	12.0	19
Male	85	1.58	62.0	85	49.5	58.0	11.0	12.5	20	35.5	42
Male	69	1.60	63.5	68	41.9	56.0	6.6	21.6	34	26.1	38
Male	71	1.72	73.0	73	53.6	68.5	14.0	19.4	27	19.4	27
Male	48	1.76	75.9	79	50.0	70.0	8.0	25.9	34	29.0	37
Male	57	1.80	80.4	?	48.3	66.0	2.1	32.1	40	—	—
Male	52	1.62	65.4	74	54.5	68.0	0.5	10.9	17	19.5	27
Male	66	1.72	72.9	95	58.8	79.0	6.5	14.1	19	36.2	38
Male	66	1.82	83.1	80	61.0	77.5	24.5	22.1	27	19.0	24
Male	37	1.86	84.6	?	47.5	74.5	—	37.1	44	—	—
Male	61	1.70	71.5	78	49.4	62.5	—	22.1	31	28.6	36
Male	52	1.77	77.1	65	53.4	71.5	10.6	23.7	31	11.6	18

Note: \* Influenced by curvature of back.

"Bennett begins by referring to the difficulties in understanding famine. Quoting Taylor, he argues: "Famine is like insanity, hard to define but glaring enough when recognised...". The statement, Bennett would admit is applicable to a whole host of social maladies including first love. But Bennett anchors himself on the difficulties of arriving at any criteria whatsoever to define famine. He quotes Taylor again: "One country would define as shortage, what another country would call famine".<sup>36</sup> Bennett's comment should embarrass most social scientists. "In recent years and particularly in the United States where food surpluses have been embarrassing politically (perhaps also morally) journalists have been prone<sup>37</sup> to report from abroad as 'famines', what subsequently appear as shortages." How can one distinguish between 'famine' and 'shortage'? Bennett is not helpful: "Criteria do not exist", he claims, "to measure the degree of hunger, emaciation, or elevation of death serving to differentiate famine from shortage".<sup>38</sup>

Bennett tells us what famine is not, and hopes we will even, like Laertes, "from indirections, find directions out": "Shortage of a particular mineral or vitamin in a population evidenced perhaps by commonly heavy incidence of scurvy, beri beri, pellagra, rickets or impaired vision is not famine, although in recent decades the word has been applied to such shortages."<sup>39</sup>

Under what conditions does widespread vitamin A deficiency, night blindness, as the layman terms it, manifest itself among the young and able bodied? Under what conditions can mortality from diseases such as influenza or even heat or cold be attributed to famine? Do we not have abundant evidence to differentiate between scurvy on board a ship and scurvy among people living on "flower seed, fuller's earth, corncocks and sawdust"?<sup>40</sup> Does social science offer no criteria at all?

Having defined famine as shortage and without offering any criteria to understand famine, Bennett defines 'true' famine as extreme shortage. "True famine is shortage of total food so extreme..."<sup>41</sup> The definition is a tautology and I plead should be set aside.

It is hardly surprising that he can hardly offer us help to study the causes of famine. He leans on Walford<sup>42</sup> and reiterates the rather facile classification between 'natural and man-made' and goes on further to assert that 'major famines' in history have been caused by "natural disasters".

Bennett's acquaintance with history appears to be fleeting.<sup>41</sup> I need hardly state that the chapter does not help to elucidate the definition. It appears that the definition of famine is weak and may perhaps refer only to the terminal phase of the famine process.

I submit therefore that Amartya Sen did not set himself the question 'what is famine?' before he accepted the definition

of famine as being 'a virulent manifestation of starvation ending in death'. I submit that the distinction that he makes between poverty and famine excludes the whole range of economic and social changes that mark the onset and maturing of famine.

(To be concluded)

### Notes

[I am grateful to Arvind Shah, Dharma Kumar, Krishna Bharadwaj, Suzy Paine, Ashin Das Gupta for useful discussions on an earlier version of part II of this paper.]

1 See Amartya Sen, 'Poverty and Famines', Oxford University Press, 1981.

2 See Amrita Rangasami, 'The Obscuring of Famine—A Human Trait', *Financial Express*, July 7, 1982.

3 See Amartya Sen, op cit, p 40.

4 G B Masfield, 'Famine, Its Prevention and Relief', Oxford University Press, 1963.

5 M K Bennett, 'Famine' in "International Encyclopaedia of the Social Sciences", Vol 5, pp 322-326. Edited by David L Sills Macmillan and Free Press, New York. See also Amrita Rangasami 'The McAlpin Capers', *Economic and Political Weekly*, September 1, 1984.

6 Amartya Sen, op cit, p 41.

7 Ibid, p 45.

8 Ibid, p 46.

9 Ibid, p 170.

10 Ibid.

11 Ibid, p 158.

12 Ibid, p 157.

13 See Jean Mayer, 'Famine Relief' in "Famine: A Symposium", Swedish Nutrition Foundation, Uppsala, 1971. As Jean Mayer has argued, "It rarely happens that the food intake is abruptly decreased to zero. Almost always there simply a prolonged period of calorie deficit and the result is chronic undernutrition or semi-starvation. Famines usually are measured in months or at most a year or two, but the progressive death toll together with various adaptive changes, reduces the food demand after not many months. Food shortages of only a few weeks, on the other hand, are generally insufficient to exhaust various hoards and stores, including the food stores in the body itself."

14 See Jean Mayer, op cit, p 179. See also R G Whitehead, "Famine: A Symposium", Uppsala, 1971, pp 41-53. Decreased calorie requirements due to decreased body weight, decreased metabolic rate and a decreased activity may eventually cause a plateauing of body weight. In a sense one might say that 'adaptation' to starvation is as much behavioural and social as it is psychological, a precarious equilibrium may thus be created which can ensure for several weeks or months.

15 See A Porter, "The Diseases of the Madras Famine of 1877-79", Madras, 1889. Porter, Principal of the Medical College in Madras during the famine of 1879 who performed autopsies on 459 victims who had died of starvation came to the conclusion that weight loss tolerance was roughly about one-

third of the normal body weight, women in comparison to men had been able to tolerate a loss of lesser percentage of body weight. "The majority had wasted until they were barely two thirds of their normal body weight." It is now agreed that severe famines are attended by weight losses of fifteen to thirty-five per cent. Porter's importance lies in his pioneering efforts to determine the duration of the biological process.

16 See Indian Famine Commission (1880), Appendix to the Report, Government Press, Madras, for a discussion on the methods of computing famine mortality. As Cormish of the Madras Government stated, "In my opinion it is only fair to debit all excess of mortality in famine areas, beyond the ascertained means of ordinary years, to famine either as directly or indirectly connected with the failure of food supplies. It is quite impossible to draw the line and say: This is a famine death, pure and simple, and of another this is a death indirectly due to famine" (Indian Famine Commission Appendix, 1880, p 33.) Hewlett, of the Bombay Presidency, added that the very system of registration of deaths was poor. Hewlett pointed out that the forms, while listing cholera and small pox and other diseases under causes of mortality did not mention starvation and anaemia. These deaths were simply to be reported under 'all other causes'.

17 See A Keys, et al, "The Biology of Human Starvation", University of Minnesota Press, Minneapolis, 1950. As Keys, et al, have pointed out, "The morphological and functional changes brought by starvation and under-nutrition refer to the changes in the individual as he passes from a well nourished state through successive stages to extreme starvation; the more important changes including loss of weight are: weakness, depression, polyuria, bradycardia, increased relative hydration of the body. These are stigmata of starvation, but they are not readily 'classifiable into a quantitative measure of the degree of starvation.' Mayer notes that the first and most obvious effect of starvation is the wasting of fat deposits. Abdominal and thoracic viscera are affected next; even the liver size is drastically diminished, the intestinal mucosa is thin, and loses some of its absorptive capacity resulting in diarrhoea. Blood pressure and pulse rate fall, oedema generally occurs as the amount of extra cellular water does not decrease correspondingly as body weight decreases... The heart shows a brown atrophy, characteristic of starvation. "All the organs and tissues of the body are affected by weight loss, the brain as it has been noted loses weight less." See Mayer, op cit, p 178.

18 G C E Burger, J C Drummond, and H R Sardstead, (eds) "Malnutrition and Starvation in Western Netherlands, September 1944-July 1945", Parts I and II, General State Printing Office, The Hague, 1948.

19 See Burger, et al, op cit, p 5.

20 Ibid, p 25.

21 See C E R Girdlestone, "Report on Past Famine in the North Western Province", Government Press, Allahabad, 1868, p 110.

See Famine Commission, Compilation of Replies to Questions Circulated by the Famine Commission for the Madras Presidency, R Hill, Government Press, Madras, 1879.

See Famine Commission, Government Central Printing Office, Simla, 1898.

See Famine Commission, *The Famine Campaign in Southern India (Madras and Bombay Presidencies and Province of Mysore), 1876-1878*, Longmans, Green Company, 1878.

See Famine Commission, Government Printing Press, Calcutta, 1901.

See Raymond Firth, "Social Change in Tikopia", George Allen Unwin, London, 1959, p 89

A J Jackson Kenneth, 'The Family Entity and Famine among the 19th Century Akamba of Kenya: Social Responses to Environmental Stress', *Journal of Family History*, 1976, 2, Winter, pp 193-216.

See B Malinowski, "Coral Gardens and Their Magic", Vol I, "Soil Tilling and Agricultural River in the Tribriand Islands", Bloomington, Indiana University Press, 1965, pp 160-165.

22 See Jackson, op cit.

23 See Amrita Rangasami, "A Study of Some Aspects of Famine-Affected Areas in India",

M Litt dissertation to the University of Delhi, 1978, unpublished, pp 18-19.

24 Ibid.

25 Ibid. See Jackson, op cit.

26 See Jackson, op cit

27 See W R Aykroyd, "The Conquest of Famine"; London: Chatto and Windus, 1974.

28 See B Jelliffe, and E Jelliffe, 'The Effects of Starvation on the Function of the Family and of Society' in "Famine: A Symposium", Gunnar Blix, *et al* (eds), Swedish Nutrition Foundation, Uppsala, 1971, p 59.

29 See W R Aykroyd, 'Definition of Different Degrees of Starvation', in "Famine: A Symposium", Gunnar Blix, *et al*, op cit, p 18.

30 See Government of Maharashtra, Revenue Department, *The Bombay Scarcity Manual (Draft)*, Government Central Press, Bombay, 1966, p 11.

31 See Jelliffe, op cit, p 58.

32 Ibid.

33 See W S Drever, "Madras Town Famine Relief Report", Madras, 1877. As Thompson, Sanitary Commissioner of the Madras Government, observed, it was the combination of anxiety, fatigue of long wandering, the want of food, the exposure cold with the disease that brought about mortality.

34 See Government of Maharashtra, *The Bom-*

*bay Scarcity Manual (Draft)*, Government Central Press, Bombay, 1962.

35 See Bennett, op cit.

36 Ibid, p 322.

37 Ibid.

38 Ibid.

39 Ibid.

40 Ibid.

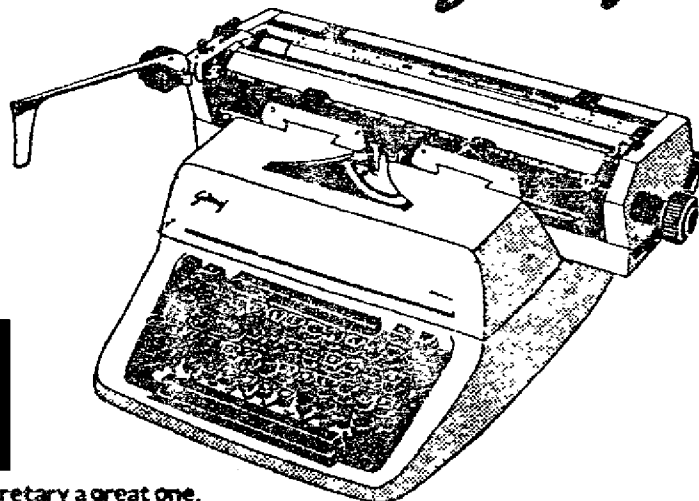
41 Ibid.

42 See Cornelius Walford, 'The Famines of the World: Past and Present'. *Journal of the Royal Statistical Society*, 41 (September 1878): 433-526; 42 (March 1879): 79-265.

43 See Famine Inquiry Commission, *Report on Bengal, 1945*. The Bengal Famine Inquiry Commission did not look upon the famine as caused by nature. "It is as regards the latter [the causes of famine] that our responsibilities differ from those of previous commissions in India which had the comparatively simple task of reporting on famines due to drought and the consequent failure of crops over wide areas. The causes of the Bengal famine, and the measures taken to relieve it have given rise to much bitter controversy, centering round the question whether the responsibility for the catastrophe should be ascribed to God or man. We have had to unravel a complicated story to give due weight to a multiplicity of causes.

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## Part II

# Failure of Exchange Entitlements' Theory of Famine A Response

Amrita Rangasami

*The sudden collapse into starvation that has been identified with the famine condition, the author argues, is only the final phase of famine when the stigmata of starvation become visual and the victims have collapsed. Famine is not, however, an event marked by the death of the victim. The basic failure in the understanding of famine is the inability to recognise the political, social and economic determinants that mark the onset of the process. We need, therefore, to redefine famine and identify the various factors, political, social, psychological and economic, that operate to keep large classes in the population under continuous pressure.*

*The first part of the essay examines the inadequacy of current definitions of famine and suggests the need to question them. The available literature, including government records on famine as well as codes and manuals of relief administration, reflects the government view that famines are caused by the collapse of the network of social transactions and services, wages and assets, including the varied services and skills of the family unit or the village. The exchange entitlement theory is thus implicit in the literature and consequently does not represent an advance. The second part of the essay is devoted to its consideration.*

[The first part of this paper was published last week: this is the second and concluding part.]

### II

THE study of the causes of famine from the academic standpoint has so far been perfunctory. Firth offers an outstanding example of the broad acceptance of the FAD theme.<sup>44</sup> Famine in the Tikopia, an atoll of a thousand souls in the Solomons, was brought about, according to Firth, by the hurricane and the crop failure as well as the inability of the Tikopia to perceive the Malthusian dictum that population must not outstrip food 'supply'. Firth sets aside the agronomic context: the penetration of foreign capital, the entry of the multinational soap manufacturers into the Solomon Islands, the appropriation of land and raw materials (copra, timber, etc) and the utilisation of local labour under conditions akin to the system of indentured labour.<sup>45</sup> Firth dismisses the sudden intrusion of the soap manufacturers into Tikopia, to recruit youngmen and the consequent impact on food production in a pre-cereal economy, to a few deprecatory paragraphs.<sup>46</sup>

Recent studies have included the study of famines under the broad rubric of disasters, and to associate the study of natural phenomena with famine.<sup>47</sup> What we are often confronted with is the use of terms referring to climatological phenomena in their popular rather than in their scientific sense. 'Drought' which meteorologically refers only to a rainfall departure from the 'normal' is an outstanding example of such abuse. That at times such abuse can be politically motivated has been indicated.<sup>48</sup> The term 'famine' is often used interchangeably with drought. The African sub-continent is now bearing the tragic burden of such abuse.

The term 'nature' has contributed another overlay of confusion. During the nineteenth century it was often used with reference to the play of market forces—the influence of the classical economists upon administrators being marked at the time.<sup>49</sup> The term 'natural calamity' used by the Famine Commission of 1880 has become part of the terminology of the Government of India.

I have offered elsewhere a categorisation of disasters and have attempted to show that famine can only be caused by endogenous forces, that is forces emerging from within the society as distinct from an earthquake or tidal wave which can be triggered by forces that are exogenous.<sup>50</sup>

Amartya Sen's contribution that famine is not caused by a 'fall in food availability' is of critical importance. In each of the famines he has analysed, the Bengal, the Ethiopian, the Bangladesh, etc, Sen has analysed the crop data and established its irrelevance to the famine. This constitutes a landmark in the history of the study of famines.

However, Sen's study appears to consider famine within a specific agronomic context rendering each famine an episode, perhaps even an aberration in the economic history of the region or the country.

Such an approach in my view is sufficient to account for famine at a given time, but not for its recurrence. We need to know not only why famines are caused but why they tend to recur in certain communities.

The study of famines should focus upon not only the famine, but the intervals between famines. Such an approach will enable consideration of the factors which engineer these crises, and render famine a recurring condition.<sup>51</sup>

This essay has the limited objective of responding to Sen's theory of exchange entitlements: I have the following observations to make on the theoretical framework:

- (1) That in the literature' famine has not been attributed to a fall in food availability.
- (2) That the explanation of entitlement is available although without formal use of the term.
- (3) That the understanding of the failure of exchange entitlement theory is explicit.

Under 'literature' I include readings from history and administration.

Let I be charged with relying upon statements drawn from different contexts, I will

state my sources. They are in the main three:

- (i) The appendices of the Famine Commission reports where the evidence of prime witnesses, the provincial administrators, have been recorded in detail. I think it would be admitted that they can be included under the heading 'relevant literature'.
- (ii) The Famine Code, its provisions and the discussion about the nature of the provisions that preceded their formal incorporation. The Code together with their derivatives and the debate on these drawn from documents between 1880 and 1905.
- (iii) The records of Board of Revenue of the Madras government during the famine of 1897; other references of the period before 1880 to establish background.

This section is divided into two parts, the first referring to the discussion in the colonial period on the causes of famine and the second referring to the concept of entitlement exchange and its failure in the terminology of the time.

These studies have to be carried further. Not only of famines but of relief systems which do not treat the malady at all but partly restore the nutritional but not the economic status of the victims.

Sen rightly observes that the phase of economic development after the emergence of a large class of wage labourers but before the development of social security arrangements is potentially a deeply vulnerable one. However, he does not note that in political systems such as India the state intervenes only to halt the starvation process but will not consider intervention in the economic process. Such half-hearted interventions can bring about conditions that contribute to recurrence. There appears to be a continuity, nutritional as well as economic, in the case histories of victim communities.

To support my view that during the colonial period crop failure or fall in food availability was not looked upon as the sole

cause of famine, I offer the following reasons:

- (1) The importance given to prices and the movement of prices.
- (2) The relationship of prices to wages.
- (3) The consideration of mass unemployment as the prime indicator of 'distress'.
- (4) The notion that famine was considered as persistent mass unemployment.
- (5) That it was a distress that enveloped all classes.
- (6) The devising of the 'annewari' or the anna value of the crop, primarily as a gauge of inability to pay land revenue and not, as is widely supposed, as a gauge of fall in yield.

It would be a misreading of economic history and the principles of relief administration if I were to suggest that the British government at the time formally articulated the 'failure of exchange entitlements' (FEE) theory. There is obviously a basic ambivalence in the approach of the government, between its attitudes as surface from the conclusions of enquiry commissions of famine and those which emerge from a reading of the principles of famine relief administration themselves. While the administrator—particularly in the district, having to deal with actual famines—tended to set down for the guidance of government the realities observed in the field, the Famine Commissioners sifting the mass of evidence, offered conclusions that on the whole tended to exonerate government of blame. Essentially the distinction between the two approaches is that while one set down what might be termed 'attributed causes', the other noted what might be described as 'manifested causes'.

A study of the reports of the important Famine Enquiry Commissions show a general similarity in the approach. They tended to blame Nature not Man. Perhaps, the Famine Enquiry Commission of 1880 set the tone when it said:

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 the food crop on which the subsistence of the population depends.<sup>52</sup>

And again:

There can be no doubt that such a calamity as famine, exceptional in its nature and arising from causes wholly beyond human control, which deprives an entire population of its customary food supply and arrests the ordinary employment of the wage-earning classes within a country such as India wholly transcends individual's effort and resistance.<sup>53</sup>

But even within the period between 1880 and 1910 when the Provincial Codes were being set down one can see a shift in emphasis. The relationship between drought and famine was not so much a reduction in total food output as a decline in the level of

employment. Where large areas remained unsown, agricultural labour was rendered idle. This approach, by and large, continues to be accepted. It follows that a fall in the level of employment can neither be arrested nor predicted as its causes are wholly beyond human control. This theme has persisted in the reports of enquiry commissions.

In contrast, those who had the business of organising relief operations had always tended to take a more pragmatic approach. They perceived that the coming of famine was due to a number of causes: the decline in food availability, for whatever reason, was one of them. But it had to be considered within its social and economic context. A marginal crop failure was bound to have a more grievous impact in a backward area than in a more developed one. The administration was also expected to keep a sharp look out for speculative forces that could convert a marginal failure into a critical one. More important, there was also the awareness that 'crop failures' were not always due to natural causes. The exactions of governments could at times make the peasant abandon the plough.<sup>54</sup>

The movement of prices was an important tool for noting the coming of famine. Any abnormal increase in the price of food-grain had to be reported to the government by the district collector. Two quotations would be sufficient to indicate the importance assigned to prices.

It is at all times an essential part of the duty of collectors to scrutinise carefully the returns of the 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.

Any serious deficiency of rainfall or cultivation and any extension of mortality among cattle should at once be reported to the Board, as also any increase of over 25 per cent above normal price together with any explanation of such an increase. As a rule, it is to be understood that rise to the scarcity rate in the staple crop or crops of district as determined by government is a sure indication of the existence of severe scarcity, calling for immediate introduction of relief measures.<sup>55</sup>

So important were prices as a gauge of distress that during the late 19th Century, government devised what were known as scarcity rates—a price level beyond which, it was held, foodgrains ceased to be available to the large mass of people.

Further, prices had constantly to be monitored in relation to wages. As many administrators tended to consider 'scarcity rates' as important in themselves and failed to perceive their relation to wages, the framers of the Famine Code found it necessary to add a warning.

The scarcity rates must, however, be fixed on correct principles if they are to serve as an index of scarcity. And the government has recently ordered a revision of the scale, pointing out that the present rates, which were fixed in 1880 on the basis of the prices which prevailed during the years ending 1875-76, need modification with reference to the recent data, that the grouping of districts is defective and that, differing as districts do widely in respect of the material condition of the population, it is incorrect to assume for the whole Presidency a uniform rate of rise in the prices of foodgrains as indicating scarcity involving pressure on the labouring classes. 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.<sup>56</sup>

Indeed, in the eyes of relief administrators, although food shortage was a factor, the critical ones were unemployment and declining real wages. Thus although the Famine Code stated that "the proximate cause of famine is the failure of crops resulting from insufficient or untimely rainfall",<sup>57</sup> famine relief did not consist of pumping in grain but of providing wages or purchasing power to permit the poor to buy food. This consisted of a massive rural works programme sufficient to give employment to a very large section of the population. The state would provide a relief wage linked to the price of the cheapest grain. In return, the paupers had to provide labour on public works.

It might be argued here that the state's policy of providing relief works was not mainly to relieve unemployment, but emerged out of the Victorian ethic that had permeated poor relief. The state in India wished to exact labour from outdoor work because it did not wish to provide relief gratuitously or in paupers' own homes. But, although this is not entirely wrong it does not alter the fact that the cause of famine as perceived and treated by the administration in India was the privation due to unemployment. It was also noted that such unemployment could persist sometimes even upto three or four agricultural seasons.<sup>58</sup> In preparedness, a shelf of work plans as well as a stock of tools had to be maintained (paupers, it was held, could not be expected to be able to provide their own tools).

Naturally, such a distress enveloped all classes those who offered their services or skills, and those who offered commodities which at a time of famine were held to be luxuries. But there was recognition of the fact that the fall in the demand for goods, particularly cloth, affected a large number of people. The administrator was expected to provide for these, preferably in their own calling. In the case of weavers, it was soon perceived that many of these were found to be too weak for manual labour. As for the artisans, the state could avail of their services in the massive irrigation and other



works that were taken up during a period of famine.

The Famine Code declares that bricklayers and other artisans should as far as possible be found employment in their own trades. "As it will generally be impossible to employ all [tanners] in their own line these will have to do manual labour."<sup>59</sup> In contrast, weavers, fell into a separate category. The first step was to identify the weavers who were unable to find a market for their goods and who were in danger of falling into a state of starvation for lack of employment. Yarn of its value was to be distributed and the cloth thus woven paid for at the end of every week. Another version of the Code recommending market rates for the cloth and adds, by way of caution, that the price paid should vary with the price of food. If the market price was so low that the weaver could not maintain himself, the price given was to be raised to such an extent as was necessary.<sup>60</sup>

All the elements discussed in the failure of exchange entitlements theory seem to be present here in the traditional framework<sup>61</sup>: the recognition of the inability of the wage-earning classes to survive shifts in the relation between wages and the prices of food continued unemployment rendering the great mass of people destitute and dependent upon the government for their maintenance; the condition of general distress that affects those who offer special skills or crafts or luxury commodities.

What role did decline in food availability play in this scheme of things? In order to understand the role played by food availability decline (FAD) in India, it is necessary to clear the misunderstanding in the use of the term *annewari*<sup>62</sup>. The *annewari* was certainly one of the tools in the armoury of the administrator to assess the degree of distress in the affected area. But it was used not to detect food shortage but the ability of the peasant to pay the Land Revenue. It expressed a 'value' of a crop, value in terms of the revenue that had to be collected from a given village. The 'anna value' of one village was not comparable with the 'anna value' of crop in another village. For instance, the four anna value in village 'A' could be twenty quintals of grain, while in village 'B' it might be only five quintals. The different 'notations' (between twelve, eight, six and four annas) expressed the ability (or inability) of the tax payer to pay current dues plus the previous year's arrears, and so on.<sup>63</sup> The *annewari* did not indicate production levels, but expressed a relation between peak and low levels of production for that given village.<sup>64</sup> And it was not a part of the Famine Code, but the Land Revenue Code. Its relation to famine conditions began to be perceived early when the administrators realised that collection of taxes could cause famine. So intimate was the relationship between collection of taxes and famine that it was held to be necessary to lay down the procedures

for remission and suspension of dues during famine years which was later incorporated into the Land Revenue Code.<sup>65</sup>

Finally, the assessment of the *annewari* had to be considered within its social and economic context. As William Robinson, senior member of Madras Council, put it, "I may observe that a well-to-do village with a quarter crop may pull through the early months of a famine while a *pariah* hamlet with dry crops only and those of the poorest kind and no money may be decimated in a few weeks with half crops. Famine administration is almost an individual thing."<sup>66</sup>

The administrators keeping a careful watch on the seasons, was expected to take note of crop failure and call for reports from his subordinate officials in the district. But crop failure alone could not be expected to develop into a famine unless speculative forces became active. The Famine Code named three factors which could be regarded as premonitory signs of a coming famine.<sup>67</sup> These were "a contraction of credit, feverish activity in the grain trade and an alarming rise in prices".<sup>68</sup> The measures that the head of the district had to take to curb speculation were often against the ideological temper of the times and were a cause of bitter dispute. A consideration of the role of the speculators became particularly critical in areas where the principal grain dealer was also the local money lender and sometimes also the leading farmer. Famine, it was observed time and again, was an economic crisis which not only halted agriculture but also brought about a large-scale change in the ownership of land. Landowners were reduced to the status of destitutes

The view that emerges from a reading of the principles of administration indicates that the government regarded famine mainly as a problem of social destitution. It believed that state intervention in the economy was an imperative and state maintenance of a significant percentage of the population was necessary. But this variance between administrative principle and the public pronouncements on famine has gone unnoticed.

I have so far only sought to establish that for those who had the business of coping with famine, FAD or failure of food availability does not have the importance assigned to it. I will now attempt to show that the notions of 'endowment' and 'entitlement' have also been articulated, although the terminology is not available.

There are three main elements: the 'entitlement', 'entitlement mapping' and 'endowment'. To illustrate endowment, Sen states:

A peasant has his land, labour power and a few other resources which together make up his endowment.<sup>69</sup>

An entitlement relation applied to ownership connects one set of ownership to another through certain rules of legitimacy

A person will be exposed to starvation if, for the ownership that he actually has, the exchange entitlement set does not contain any feasible bundle including enough food

Among the influences that determine a person's exchange entitlement, given his ownership bundle (including labour power), are the following:

- (1) whether he can find an employment, and if so for how long and at what wage rate;
- (2) what he can earn by selling his non-labour assets; and how much it costs him to buy whatever he may wish to buy;
- (3) what he can produce with his own labour power and resources (or resource services) he can buy and manage;
- (4) the cost of purchasing resources (or resource services) and the value of the products he can sell;
- (5) the social security benefits he is entitled to and the taxes, etc. he must pay.

A person's ability to avoid starvation will depend both on his ownership and on the exchange entitlement mapping that he faces.<sup>72</sup>

Let me juxtapose this account with another. The account of the rural economy as described by administrators of the nineteenth century India affords a fair description of 'endowment', 'entitlement' and 'entitlement mapping'

- (a) It sets down with precision the 'endowment' under various types of tenures (i.e. the proprietor farmer, tenant with occupancy rights and tenant-at-will), the hierarchical as well as the informal relationships within the society that support it.<sup>73</sup>
- (b) It attempts to complete 'entitlement' with reference not only to economic rights in-land, but the social roles that add their moiety towards the 'food bundle'.<sup>74</sup>
- (c) It notes the ecological complexities that might dilute earnings.<sup>75</sup>
- (d) It not only describes the 'mapping' but the tensions that underlie such relations as well.<sup>76</sup>
- (e) It sets a time frame upon the 'entitlement mapping'—credit cycles that may not overlap with family life cycles. With the snapping of credit ties, the family might scatter ere the siblings come of age.<sup>77</sup>

The administrators noted the tensions within this framework that heralded the coming of famine. A commencement of survey and resettlement operations tended to trigger unease. The proprietor-creditor commenced proceedings against tenants who had hitherto considered themselves secure. The rise in litigation, the rise in stamp fees and the contraction of credit were indicators of the onset of famine.<sup>78</sup> Certainly Sen might well argue that these sets of conditions related to only one type of entitlement mapping, whereas he had offered a mechanism within which a whole range of networks can be examined.<sup>79</sup>

But there is a final distinction to make—and that is in regard to the nature of famine Sen's definition as noted earlier makes a sharp distinction between 'the typical level

of food consumption', 'the declining trend of food consumption' and 'a sudden collapse of the level of food consumption. Famine, he states with emphasis, is chiefly a problem of the third kind. The framers of the Famine Code offer a distinctly different approach. Firstly, they confessed that given the level of the information on the agricultural economy, it was very difficult to pinpoint 'at what time and not before' the distress had reached a stage at which the state should intervene in the rural economy. What is important here is to note the implication of the awareness of famine being a process.

There is one point in regard to which the framers of the Code desire to guard themselves from being misunderstood. It must not be thought that they accept the idea that it is possible to fix, except in an arbitrary manner, the exact time when agricultural distress has reached the stage at which, and not before, the intervention of the state has to be invoked; they fully recognise the fact that its approach is gradual.<sup>30</sup>

Hitherto, for want of the necessary administrative arrangements, the condition of the agricultural classes in ordinary seasons has not been the object of special solicitude, and as some time must elapse before these can come into operation and the requisite information becomes available, it was considered expedient to define as nearly as possible, the period when the state was bound to intervene. It was for this reason that the rise in the price of foodgrains beyond a specified datum was adopted as a test of the existence of scarcity and distress requiring relief and to meet any emergency.

The sudden collapse into starvation that has been identified with the famine condition is only, as I have argued earlier, the final phase of famine when the stigmata of starvation become visual, and the victims have collapsed. Famine is not an event marked by the death of the victim. The basic failure in the understanding of famine we have today is the inability to recognise the political, social and economic determinants that mark the onset of the process.

We need, therefore, to re-define famine and identify the various factors, political, social, psychological and economic that operate to keep large classes in the population under a continuous pressure.

### Notes

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 48 Amrita Rangasami (1974b), "The Uses of Drought", *Economic and Political Weekly*, 9, December 14.  
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 49 See Col R Baird Smith, "Report on the Famine in the North-West Province of 1860-61", Section I-A, p 14.  
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 A reference to the definition arrived at first in series of newspapers articles on scarcity in Maharashtra is therefore relevant. "Famine can be defined as a rendering destitute of a rural community at recurring intervals".  
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 53 Ibid.  
 54 See "Memorandum, Judicial Department", (1805), from J Deane Magistrate, Jaunpore to George Dowdswell, Secretary to Government, North-West Province.  
 55 Madras Famine Code (1883), Superintendent, Government Press, Madras.  
 56 Ibid.  
 57 Famine Code Madras Province (1950), Superintendent, Government Press, Madras.  
 58 See Madras Famine Code, (1883), op cit.  
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 60 Ibid.  
 61 See A K Sen (1977), "Starvation and Exchange Entitlements: A General Approach and Its Application to the Great Bengal Famine" *Cambridge Journal of Economics*, 1.  
 62 Ibid. See also A K Sen (1976), "Famine as Failures of Exchange Entitlements", *Economic and Political Weekly*, 11, Special Number.  
 63 Amrita Rangasami (1981), 'Anomalies in Rural Banking', *Financial Express*, December 29.  
 64 Ibid.  
 65 Indian Famine Enquiry Commission Report (1901), Part-III Superintendent, Government Printing, Calcutta, India, p 132.  
 66 W R Robinson (1879), "Indian Famine Enquiry Commission", Compilation of replies to questions circulated by the Famine Commission for the Madras Presidency, Vol II, p 554, Government Press, Madras.

- 67 Government of Maharashtra, (1966), *Scarcity Manual* p 16.  
 68 Ibid.  
 69 A K Sen (1981), "Poverty and Famines". Clarendon Press, Oxford, op cit.  
 70 Ibid.  
 71 Ibid.  
 72 Ibid.

73 Report of the Indian Famine Commission, 1880 (Appendix, Vol III), Replies to Inquiries of the Commission.

See Mardachie's reply to question No 9 of the Commission on the economic conditions of the agriculturists in the Punjab:

The proprietors are men of different parts of the district, chosen as living in different assessment circles, and thus being as regards soil and irrigation at least in different circumstances. ... The holding of the canal proprietor is not generally larger than the ordinary size throughout the district, 12 to 15 acres, but he gets richer crops. ... The general condition, then of the proprietor may be described as moderately prosperous; there is little margin for him to fall back on in bad times, and his style of living is somewhat low, but in ordinary years and with ordinary expenses, he generally pays his way. The tenants with occupancy rights, and still more the tenant-at-will might perhaps to be supposed as being inferior in station, to be inferior in circumstances also to the proprietor. This, however, is not always the case. ... Upto the present time he generally pays only the revenue rate of the village on his land, i.e. he pays no rent, so that, provided his holding is of a fair size, he may be as well as the proprietor of other land in the same village. There seems little doubt, however, that when the new assessments shall be announced, a general attempt will be made on the part of the proprietors to obtain rent, or an enhancement of rent, and this must lessen the profits of the tenant. The position of the tenant-at-will is very unequal. He too at present often pays only the revenue rate. But on the other hand he sometimes has to pay a competition rent.

- 74 "The tenant with occupancy has sometimes an auxiliary income from 'purohitai', priestly dues, which enables him not only to pay his way but save money." "Money-lending is possible only in the case of profitable farming but this is not uncommon. It obtains only where the men are shrewd and thrifty. In fact, seeing how some Jats amass capital, and prosper as usurers, one is inclined to think that differences of soil are less important than differences in mental and moral habits." "The proprietor in Rathdhanch makes Rs 54 by *ghi* sold; the tenant-at-will in the same village Rs 24, a proprietor makes Rs 36, the same amount comes to the Gujar proprietor". "Letting out garis on hire brings in something, Rs 12 to 54, and often there is more than this, chiefly however near towns." "The last item is hire for labour, which, of course, when regularly pursued, is fairly lucrative for an able-bodied man. The earnings of

boys in the Kolu chak as herdsmen seem noticeable": "Lambardar's dues (village security) are a help, but a small one, and the social habits engendered by possession of the dignity are more than a counter-balance to the income thus obtained" (See Replies to Inquiries to the Commission, op cit.)

- 75 "The canal irrigation, at the style in which it has been going on here for many years past, would, I believe, ruin any land in time. It is of no use to say that the people are to blame for flooding their land so; their reply is cogent, we must do so to sustain the heavy government demand. The inelasticity, too, of the canal water rent is against them!" "If they do not have sufficient discretion to prevent a far distant but surely coming destruction of powers by a moderate use of the immense power of irrigation from canals, that responsibility is with the government. The remedy is simple, allow only moderate irrigation and assess accordingly." (See Replies to Inquiries to the Commission, op cit.)
- 76 The government demand is inelastic and we have failed to teach the people as yet to prevent the strain in bad years by thrift in good seasons. But the adjustment is generally accomplished though in a costly and clumsy manner. They moneylender gives help in bad seasons and is repaid in good, the greater cost is found in his exorbitant interest! "The middleman class' is numerous, it is favoured by intelligence and

social custom. And this brings us to what perhaps is not the greatest cause of indebtedness strictly speaking, but the greatest cause of increase of indebtedness, viz, the power of the moneylender over the Zamindar." (See Replies to Inquiries to the Commission, op cit.)

- 77 "The pressure of population is felt more directly here [the tenant at will] than any other class. A family of strong men, or having active women may do well, but whenever the non-producing part of the house becomes large, distress is sure to follow. The mali of Rathdaneh gets together in one way or another a pretty large income, but the large quantity of food requisite to keep his seventeen people going makes it a hard matter to keep out of debt." "Probably by the time the boys come to working age, they will find their earnings embarrassed with considerable debt. The limit, however, is not far off, when the moneylender ceases to give credit, the house breaks up and the men scatter to earn their living by hiring themselves out." (See Replies to Inquiries to the Commission, op cit.)
- 78 The Deccan Riots Commission Report, 1875. See also Amrita Rangasami, "The McAlpin Capers", *Economic and Political Weekly*, September 1, 1984.
- 79 See The Famine Code, 1880, Introduction, op cit.
- 80 Ibid.
- 81 Ibid.

rate (Uttar Pradesh and Madhya Pradesh) due to differentials in the acceptance of family planning, even among the poorest, in favour of the first set of states. In other words, it stands to reason that family size is higher in states having a higher birth rate and poor child survival than in states having a lower birth rate and higher child survival. But in fact this is not so. Family size is as high in both sets of states, even in recent years. To prove this, the average number of persons per occupied residential household, taken as a proxy for the average family size, is computed from the data drawn from 1971 and 1981 censuses for the two sets of states (see accompanying Table). These data show that family size appears to be just as high in states with low fertility and high child survival (Kerala and Karnataka) as in those with high fertility and poor child survival (Uttar Pradesh and Madhya Pradesh) both in 1971 and 1981, with it being a shade higher in Uttar Pradesh than in the other three states.

Reduction in family size is noticed between 1971 and 1981, but this is not exclusively in states with a lower birth rate. The general decline in family size, therefore, may not be mainly due to acceptance of family planning. This is not to say that the decline in birth rate in recent years is independent of the wider acceptance of family planning during the last decade, but to assert that increasing acceptance of family planning is due to the assurance of survival of children. This association between low birth rate and better child survival may continue until the infant and child mortality rates reach some minimum level. Thereafter, a decline in the birth rate would indicate a reduction in the number of living children which would be possible only if parents perceive the advantages of a small family. The experience of China that Gopalan cites stands as an example for this type of phenomenon. The 'health revolution' and the 'nutritional revolution', which preceded the striking decline in the fertility rate, succeeded in bringing down infant and child mortality in China. The IMR in China, for example, was as low as 31 in 1961 and has continued to be low in the last two decades.<sup>1</sup> Therefore, we can infer with certitude that in China a decline in fertility rate in recent years has resulted in a decline in family size. Wide-

## DISCUSSION

# On the Mother and Child in India

B Manjeshwar Dinesh

IN his article (*EPW*, January 26) C Gopalan stresses the need for a better "maternal and child health" system in the country. His argument for a well conceived, comprehensive national policy for the eradication of widespread under-nutrition among children and all the more among mothers sounds reasonable. Nevertheless, his conclusion, based on data on the crude birth rate, death rate and prevalence of malnutrition in two sets of states, that reduction in the number of children from four to two may not be able to bring about any striking change in the quality of life and nutritional status of the family" is provocative. It makes us think whether all the effort made in recent years for the promotion of the slogan "small is healthy" is futile. Let us look into this aspect in a greater detail.

Data presented in Table 7 in Gopalan's article show that the prevalence of malnutrition is high in children under five years both in states having a high birth rate and poor child survival and in states having a low birth rate and high child survival. As one can understand from Gopalan's argument, if a reduction in the number of children has ever

improved the nutritional standard of the children, the prevalence of malnutrition in states with a low birth rate and high child survival would have been less than in states with a high birth rate and poor child survival, in comparative terms. But a clear pattern does not emerge and hence he draws the aforesaid conclusion. Here the implied assumption is that the average number of children per family is lower in states with a lower birth rate (Kerala and Karnataka) compared to that in states with a higher birth

TABLE. AVERAGE NUMBER OF PERSONS PER OCCUPIED RESIDENTIAL HOUSEHOLD, 1971 AND 1981

State	Average Number of Persons Per Occupied Residential Household		
	1971	1981	Difference (1971-1981)
Kerala	6.3	5.9	0.4
Karnataka	6.2	5.9	0.3
Uttar Pradesh	6.4	6.2	0.2
Madhya Pradesh	6.1	5.8	0.3

Sources: (1) Census of India, 1971, "Series I, India, Part II-A (i), General Population Tables" Controller of Publications, Delhi, 1975, pp 54-55.

(2) Census of India, 1981, "Series I, India, Part II-B (i) Primary Census Abstract, General Population", Controller of Publications, Delhi, 1983, pp 4-27.