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# **WIDER WORKING PAPERS**

**Food, economics and entitlements  
by Amartya Sen**

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FOOD, ECONOMICS AND ENTITLEMENTS

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## FOOD, ECONOMICS AND ENTITLEMENTS\*

Amartya Sen

I feel very deeply honoured by the invitation to give the fourth Elmhirst Lecture, and I am most grateful to the International Association of Agricultural Economists for this invitation and to Professor Glenn Johnson for his kind - in fact much too generous - introductory remarks. The previous three Elmhirst Lecturers - Ted Schultz, Arthur Lewis and Keith Campbell - all spoke on some broad themes with particular relevance to policy, and I shall try to follow this tradition by discussing some general questions in the economics of food and hunger and their policy implications.

Leonard Elmhirst himself devoted much of his life to social action. On policy matters, he was not only a thinker (a very original one), he was also a great activist. I personally was very fortunate in having the opportunity of knowing him since my childhood. Elmhirst was not only a major figure in my school at Santiniketan, in India, he had initiated various pioneering activities of rural reconstruction in the villages around the school, playing an active part in the local battle against poverty and hunger in that depressed part of Bengal. I thought of Elmhirst, then, mainly as an educationist and a rural reconstruction activist, and it is only later I came to

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\* Text of the fourth Elmhirst Lecture at the triennial meeting of the International Association of Agricultural Economists, in Malaga, Spain, on 26th August 1985. The paper was prepared at the World Institute of Development Economic Research in Helsinki, and I am grateful for discussions with Lal Jayawardena and Nanak Kakwani.

realize how extensive his contributions were to the development of economic and social research, including that in agricultural economics. When, as an undergraduate in England, rather exhausted by my first winter in that astonishingly damp country, I visited Elmhirst at Dartington Hall, I was struck by the extraordinary range of his interests (and achievements). It gives me great pleasure to be able to join in honouring the memory of Leonard Elmhirst, the Founder-President of this Association.

#### 1. Economics and the Acquirement Problem

In a warm message sent to the Sao Paulo conference of this Association in 1973, Leonard Elmhirst gave some wise advise to the gathering economists, after wishing them "lots of down to earth discussions at the grass roots with plenty of vision for the future". He wanted "the boots of economists [to be] firmly rooted in the soil and their heads in the skies".<sup>1</sup> He was, of course, right to be worried that we professional economists find it easy enough to dangle our boots in the skies and equally easy to bury our heads firmly in the soil. Elmhirst, who warned us against both, did not tell us which of the two feats he feared more. It is, however, fair to say

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1. See T. Dams and K.E. Hunt, eds., Decision-Making and Agriculture (Oxford: Agricultural Economics Institute, 1977), p. 14.

that in the popular vision, it is the dangling boots in the skies that mostly characterise the folly of economists.

Economists are supposed to be singularly lacking in common sense. This is not a new charge that has emerged only in recent years. In a letter to Knut Wicksell, dated the 26th of July 1904, Alfred Marshall complained that a newly arrived student at Cambridge had told him that "the founders of Economics of all nations were inferior in common sense to most children of ten".<sup>2</sup> Marshall was not amused by the remark, and promptly challenged the detractor to a serious argument, even though, as he explained to Wicksell, he regarded "personal controversies as a great waste of time".<sup>3</sup> Marshall did not record who won the argument (I suppose one does not get great honour from thrashing a student), but he could not really have disposed of the question. The view that economists unnecessarily complicate problems that are perfectly simple and easily solved by a little use of commonsense has certainly outlived Marshall rather substantially, and is regularly encountered today.

This is, in fact, quite an occupational hazard in the field of food economics and hunger. "Practical" people are easily convinced that they know precisely what the problem is, and even though what they "know" with such certainty varies from person to person, they are impatient

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2. See Torsten Gårdlund, The Life of Knut Wicksell (Stockholm: Almqvist & Wiksell, 1958), p. 339.

3. Gårdlund, p. 339. Marshall's ire was particularly directed at Bohm-Bawerk, whom the student had cited as "his authority", and with whom Marshall seemed to have been rather displeased anyway at that time for other reasons, such as Bohm-Bawerk's criticisms of Marshall's own writings, which - Marshall confessed to Wicksell - he had "decided not to answer, probably not even to read" (p. 341).

with the economists' tendency to use complicated ideas to tackle apparently simple problems. What may be called "instant economics" has always appealed to the quick-witted layman impatient with the slow-moving economist. In the field of hunger and food policy, the need for speed is of course genuinely important, and this impatience does have considerable sense. But instant economics is also dangerously deceptive, particularly in this field. Millions of lives depend on the adequacy of the policy response to the terrible problems of hunger and starvation in the modern world. Past mistakes of policy have been responsible for the death of many millions of people and the suffering of hundreds of millions, and this is not a subject in which short-cuts in economic reasoning can be taken to be fairly costless.

One common feature of a good deal of instant economics related to food and hunger is impatience with investigating the precise mechanisms for acquiring food that people have to use. People establish command over food in many altogether different ways. For example, while a peasant owning his land and the product of his labour simply owns the food produced, a wage labourer paid in cash has to convert that wage into a bundle of goods, including food, through exchange. The peasant does, as it were, an exchange with "nature", putting in labour, etc., and getting back the product, viz. food. The wage labourer does repeated exchanges with others in the society - first his labour power for a wage and then the wage for a collection of commodities including food. We cannot begin to understand

the precise influences that make it possible or not possible to acquire enough food, without examining the conditions of these exchanges and the forces that govern them. The same applies to other methods of acquiring food, e.g., through share-cropping and getting a part of the produce, through running a business and making a profit, through selling services and earning an income, and so on. I shall call the problem of establishing command over commodities, in this case food, the "acquirement problem", and it is easy to establish that the acquirement problem is really central to questions of hunger and starvation in the modern world.

The acquirement problem is often neglected not only by non-economists, but also by many economists, including some great ones. For example, Malthus in his famous Essay on the Principle of Population as It Affects the Further Improvement of Society (1798) leaves the acquirement problem largely unaddressed, though in his less known pamphlet An Investigation of the Cause of the Present High Price of Provisions (1800), which deals with more short-run problems, Malthus is in fact deeply concerned precisely with the nitty-gritty of this problem.<sup>4</sup> The result of this neglect in the former work is not without practical consequence, since the popularity of the Malthusian approach to population and food, and of the particular metric of food output per head extensively used in the Essay on Population, has tended to give that metric undue prominence in policy discussions across the world.

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4 . On the importance of the latter document, which has received much less attention than the former, see my Poverty and Famines (Oxford: Clarendon Press, and New York: O.U.P., 1981) Appendix B.

Malthusian pessimism, based on the expectation of falling food output per head, has not been vindicated by history.

Oddly enough, what can be called "Malthusian optimism", i.e., not being worried about the food problem so long as food output grows as fast as - or faster than - population, has often contributed substantially to delaying policy response to growing hunger (against a background of stationary or rising food output per head). This is a serious enough problem in the case of intensification of regular but non-extreme hunger (without starvation deaths but causing greater proneness to morbidity and mortality), and it can be quite disastrous in the context of a famine that develops without a decline in food output per head, with the misguided focus leading to a hopelessly delayed response of public policy. While Malthus' own writings are by no means unique in focussing attention on the extremely misleading variable of food output per head, "Malthusian optimism", in general, has been indirectly involved in millions of deaths which have resulted from inaction and misdirection of public policy.<sup>5</sup> While fully acknowledging the great contribution that Malthus has made in highlighting the importance of population policy, this negative feature of his work, related to his own bit of instant economics, must also be recognised.

The neglect of the acquirement issue has far-reaching consequences. For many years rational discussion of the food problems of the modern world was distracted by undue concentration

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5. This issue is discussed in my "The Food Problem: Theory and Policy," Third World Quarterly, 4 (1982).

on the comparative trends of population growth and the expansion of food output, with shrill warnings of danger coming from very respectable quarters.<sup>6</sup> The fear of population outrunning food output in a global scale has certainly not been realized, and the world food output per head has steadily risen.<sup>7</sup> This has, however, gone hand in hand with intensification of hunger in some parts of the world. In many - though not all - of the affected countries, food output per head has in fact fallen, and the anxiety about these countries has often been anchored to the statistics of food output per head, with Malthusian worries translated from the global to the regional or country level. But a casual analysis of the persistence and intensification of hunger and of the development of famines does, in fact, call for something more than attention being paid simply to the statistics of food output per head.

I shall have more to say on the policy questions presently, but before that I would like to discuss a bit further the nature and implications of the acquirement problem. I shall also discuss some arguments that relate to studying food and hunger in terms of what in my book, Poverty and Famines,<sup>8</sup>

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6. The Club of Rome, despite its extremely distinguished leadership, had been responsible for some of the more lurid research reports of doom and decline. But see the later study sponsored by the Club undertaken by H. Linnemann, MOIFA: A Model of International Relations in Agriculture (Amsterdam: North-Holland, 1981), which shows the picture to be both less gloomy and more influenceable by policy. See also K. Parikh and F. Rabar, Ed., Food for All in a Sustainable World (Laxenburg: IIASA, 1981), especially on the role of policy.

7. See, for example, FAO, The State of Food and Agriculture 1984 (Rome: FAO, 1985)

8. Oxford: Clarendon Press, and New York: O.U.P., 1981. See also my "Starvation and Exchange Entitlements: A General Approach and Its Application to the Great Bengal Famine," Cambridge Journal of Economics, 1 (1977); "Ingredients of Famine Analysis: Availability and Entitlements," Quarterly Journal of Economics, 95 (1981).

was called the "entitlement Approach".<sup>9</sup> That approach has been extensively discussed, examined, criticised, applied as well as extended, and I have learned a lot from these contributions.<sup>10</sup> But the approach has also been occasionally misinterpreted, and given the importance of the subject of food policy and hunger, I shall permit myself the self-indulgence of commenting -inter alia - on a few of the points that have been made in response to my earlier analysis.

## 2. Famines and Entitlements

The entitlement approach provides a particular focus for the analysis of famines. It does not specify one particular causation of famine - only the general one that a famine reflects widespread failure of entitlements on the part of substantial sections of the population. Such failure can arise from many different causes.

The entitlement of a person stands for the set of different alternative commodity bundles that the person can acquire through the use of the various legal channels of acquirement open to someone in his position. In a private ownership market economy, the entitlement set of a person is determined by his original bundle of ownership (what is called his "endowment")

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9. Note that the use of the expression "entitlement" here is descriptive rather than prescriptive. A person's entitlements as given by the legal system, personal circumstances, etc., need not command any moral endorsement. This applies both to the opulent entitlements of the rich and to the meagre entitlements of the poor. One of the points to emerge was the recognition that "famine deaths can reflect legality with a vengeance" ("Ingredients of Famine Analysis: Availability and Entitlements," p. 462).

10. Particularly from Kenneth J. Arrow, "Why People Go Hungry," New York Review of Books, 29 (15 July 1982); Christopher Bliss, "The Facts about Famine," South, March 1982; Keith Griffin, "Poverty Trap," Guardian, 7 October 1981; Teresa Hayter, "Famine for Free," New Society, 15 October 1981; Vijay Joshi, "Enough To Eat," London Review of Books, 19 November 1981; Michael Lipton, "The Analysis of Want," Times Literary Supplement, 1981; Robert M. Solow, "Relative Deprivation?" Partisan Review, 51 (1984); Meghnad Desai, "A General Theory of Poverty," Indian Economic Review, 1984, among others.

and the various alternative bundles he can acquire starting respectively from each initial endowment, through the use of trade and production (what is called his "exchange entitlement mapping"). This is not the occasion to go into the formal characterisation of endowments, exchange entitlement mappings, entitlement sets, etc.; I have spelt these out in some detail - some would say painful detail - elsewhere (in my book Poverty and Famines).

A person has to starve if his entitlement set does not include any commodity bundle with enough food. A person is reduced to starvation if some change either in his endowment (e.g., alienation of land, or loss of labour power due to ill health), or in his exchange entitlement mapping (e.g., fall in wages, rise in food prices, loss of employment, drop in the price of the good he produces and sells), makes it no longer possible for him to acquire any commodity bundle with enough food. I have argued that famines can be usefully analysed in terms of failures of entitlement relations.

The advantages of the entitlement approach over more traditional analysis in terms of food availability per head were illustrated with case studies of a number of famines, e.g., the Bengal famine of 1943, the Ethiopian famines of 1973 and 1974, the Bangladesh famine of 1974, and the Sahel famines in the early seventies.<sup>11</sup> In some of these famines food availability per head had gone down (e.g., in the Sahel famines); in others there was no significant decline - even

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11. See Poverty and Famines, Chapters 6-10.

a little increase (e.g., in the Bengal famine of 1943, the Ethiopian famine of 1973, the Bangladesh famine of 1974). That famines can occur even without any decline in food output or availability per head makes that metric particularly deceptive. Since food availability is indeed the most commonly studied variable, this is a source of some policy confusion. It also makes "Malthusian optimism" a serious route to disastrous inaction. But the point of entitlement analysis is not only to dispute the focus on food availability, but more positively also to provide a general approach for understanding and investigating famines through focussing on variations on endowments and exchange entitlement mappings. I have tried to illustrate the use of this approach in various case studies.<sup>12</sup>

Famine can be caused by various different types of influences, and the common predicament of mass starvation does not imply any one common fundamental cause. Droughts, floods, general inflationary pressure, sharp recessionary loss of employment, and so on, can all in their own way deprive large sections of the population of entitlement to adequate food. A decline in food output or availability can, of course, be one of the major influences on the development of a famine, but even when that is the case (indeed even when food availability decline is the primary proximate antecedent), a serious study of the causal mechanism leading to the famine and the precise form it takes will require us to go into the behaviour of the determinants of entitlements of the different sections

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12. Poverty and Famines, Chapters 6-10.

of the population.<sup>13</sup>

In Poverty and Famines two broad types of famines were distinguished from each other, viz. boom famines and slump famines. A famine can, of course, occur in a situation of general decline in economic activity (as happened, for example, in the Wollo province of Ethiopia in 1973, due to a severe drought). But it can also occur in over-all boom conditions (as happened, for example, in the Bengal famine of 1943, with a massive expansion of economic activity related to war efforts). If economic expansion is particularly favourable to a large section of the population (in the case of the Bengal famine, roughly the urban population including that of Calcutta), but does not draw into the process another large section (in the Bengal famine, much of the rural labouring classes), then that uneven expansion can actually make the latter group lose out in the battle for commanding food. In the food battle the devil takes the hindmost, and even a boom condition can lead to some groups losing their command over food due to the worsening of their relative position vis-a-vis the groups favoured by the boom.

It is also important to emphasize that the entitlement approach is consistent with many different detailed theories of the actual causation of a famine. While the approach identifies certain crucial variables, different theories of the determination of the values of these variable may all be consistent with the general entitlement approach. For example, the entitle-

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13. Poverty and Famines, Chapter 10.

ment approach does not specify any particular theory of price determination, but relative prices are quite crucial to the entitlements of various occupation groups. The entitlement approach by itself does not provide - nor is it intended to provide - a detailed explanation of any famine, and such an explanation would require supplementation by more specific theories of movements of prices, wages, employment, etc., causing particular shifts in the entitlements of different occupation groups. <sup>14</sup>

What the entitlement approach does is to take up the acquirement problem seriously. Rather than arbitrarily making some implicit assumption about distribution (such as equal division of the available food, or some fixed pattern of inequality in that division), it analyses acquirement in terms of entitlements, which in a private ownership economy is largely a matter of ownership and exchange (including of course production, i.e., exchange with nature). I would claim that this is not in any way a departure from the old traditions of economics. It is, rather, a reassertion of the continuing concern of economics with the mechanism of acquiring commodities. If I had the courage and confidence that Gary Becker shows in his distinguished work in calling his own approach "the economic approach", <sup>15</sup> I would have called the entitlement approach by

14. See Peter Svedberg, "Food Insecurity in Developing Countries: Causes, Trends and Policy Options," UNCTAD TD/B/C.1/257, October 13, 1984; Martin Ravallion, "The Performance of Rice Markets in Bangladesh during the 1974 famine," *Economic Journal*, 92 (1985); Qaisar M. Khan, "A Model of Endowment Constrained Demand for Food in an Agricultural Economy with Empirical Applications to Bangladesh," mimeographed, forthcoming in World Development.

15. See Gary S. Becker, The Economic Approach to Human Behaviour (Chicago: Chicago University Press, 1976), and A Treatise on the Family (Cambridge, Mass.: Harvard University Press, 1981).

the same bold name. While the price of timidity is to shy away from such assertive naming, I would nevertheless claim that economic traditions stretching back centuries do, in fact, direct our attention to entitlements in analysing problems of wealth, poverty, deprivation and hunger.

This is clear enough in Marx's case,<sup>16</sup> but the point is often made that Adam Smith was a great believer in the simple theory of food availability decline in explaining all famines, and that he would have thus had little patience for discussion of entitlements and their determinants. Indeed, it is true that in his often-quoted "Digression concerning the Corn Trade and Corn Laws" in Book IV of the Wealth of Nations, Adam Smith did remark that "a dearth never has arisen from any combination among the inland dealers in corn, nor from any other cause but a real scarcity, occasioned sometimes, perhaps, and in some particular places, by the waste of war, but in by far the greatest number of cases, by the fault of the seasons"<sup>17</sup> however, in understanding the point that Adam Smith is making here, it is important to recognise that he is primarily denying that traders could cause famine through collusion, and he is disputing the view that famines often follow from artificial shortages created by traders, and asserting the importance of what he calls "a real scarcity". I shall have the occasion to take up this aspect of Smith's observation presently when

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16. See, for example, the discussion on wages and capital in Capital, vol. I (London: Sonnenschein, 1887), Parts VI and VII.

17. Adam Smith, An Inquiry into the Nature and Causes of the Wealth of Nations, Book IV, Chapter V, b.5. In the edition edited by R.H. Campbell and A.S. Skinner (Oxford: Clarendon Press 1976), vol. 1, p. 526.

I discuss the issue of anti-famine policy.

We have to look elsewhere in the Wealth of Nations to see how acutely concerned Adam Smith was with the acquirement problem in analysing what he called "want, famine and mortality". I quote Smith from the chapter called "Of the Wages of Labour" from Book I of the Wealth of Nations:

But it would be otherwise in a country where the funds destined for the maintenance of labour were sensibly decaying. Every year the demand for servants and labourers would, in all the different classes of employments, be less than it had been the year before. Many who had been bred in the superior classes, not being able to find employment in their own business, would be glad to seek it in the lowest. The lowest class being not only overstocked with its own workmen, but with the overflowings of all the other classes, the competition for employment would be so great in it, as to reduce the wages of labour to the most miserable and scanty subsistence of the labourer. Many would not be able to find employment even upon these hard terms, but would either starve, or be driven to seek a subsistence either by begging, or by the perpetration perhaps of the greatest enormities. Want, famine, and mortality would immediately prevail in that class, and from thence extend themselves to all the superior classes... 18

Here Adam Smith is focussing on the market-based entitlement of labourers, and its dependence on employment and real wages, and explaining famine from that perspective. This should, of course, come as no surprise. In denying that artificial scarcity engineered by collusive traders can cause famine, Adam Smith was in no way closing the door to the economic analysis of various different real influences on the ability of different groups to command food in the market, in particular the values of wages and employment.

Perhaps it is useful to consider another argument presented by another great classical economist, viz. David Ricardo,

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18. Smith, Wealth of Nations, Book I, Chapter VIII, 26, PP. 90-1.

attacking the view that a famine cannot occur in a situation of what he calls "superabundance". This was in a speech that Ricardo wrote for delivery in Parliament in 1822, using the third person for himself as if the speech is reported in the Hansard, though in the event Ricardo did not actually get to deliver the speech. The reference is to the famine conditions then prevailing in Ireland, and Ricardo examines the point made by another member of Parliament that this could not be the case since there was superabundance of food in Ireland at that time.

But says the honble. gentn. the people are dying for want of food in Ireland, and the farmers are said to be suffering from superabundance. In these two propositions the honble. gentn. thinks there is a manifest contradiction, but he Mr. R could not agree with him in thinking so. Where was the contradiction in supposing that in a country where wages were regulated mainly by the price of potatoes the people should be suffering the greatest distress if the potato crop failed and their wages were inadequate to purchase the dearer commodity corn? From whence was the money to come to enable them to purchase the grain however abundant it might (be) if its price far exceeds that of potatoes. He Mr. Ricardo should not think it absurd or contradictory to maintain that in such a country as England where the food of the people was corn, there might be an abundance of that grain and such low prices as not to afford a remuneration to the grower, and yet that the people might be in distress and not able for want of employment to buy it, but in Ireland the case was much stronger and in that country there should be no doubt there might be a glut of corn, and a starving people. 19

There is indeed nothing surprising in the fact that economists should be concerned with the acquirement problem, and dispute the instant economics that overlooks that aspect of the food

19. The Works and Correspondence of David Ricardo, edited by P. Straffa, with the collaboration of M.H. Dobb, Vol. 3 (Cambridge: Cambridge University Press, 1971), pp. 234-35.

problem based on confusing supply with command, as the "honourable gentleman" quoted by David Ricardo clearly did. It is a confusion that has recurred again and again in actual discussions of the food problem, and the need to move away from instant economics to serious analysis of the acquirement problem and the entitlement to food is no less today than it was in Ricardo's time. <sup>20</sup>

It is not my purpose to assert that the entitlement approach is flawless as an economic approach to the problem of hunger and starvation. Several "limitations" of the entitlement approach were, in fact, noted in Poverty and Famines, including ambiguities in the specification of entitlement, the neglect of non-legal transfers (e.g., looting) in the disposition of food, the importance of tastes and values in causing hunger despite adequate entitlement, and the relevance of disease and epidemic in famine mortality which extends far beyond the groups whose entitlement failures may have initiated the famine. <sup>21</sup>

To this one should also add that in order to capture an important part of the acquirement problem, to wit, distribution of food within a family, the entitlement approach would have to be extended. In particular, notions of preceived "legitimacy"

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20. See Lance Taylor's illuminating critique, "The Misconstrued Crisis: Lester Brown and World Food", World Development, 3 (1975)

21. Poverty and Famines, pp. 48-50.

of intrafamily distributional patterns have to be brought into the analysis, and its causal determinants analysed.<sup>22</sup>

Further, if the focus of attention is shifted from famines as such to less acute but possibly persistent hunger, then the role of choice from the entitlement set becomes particularly important, especially in determining future entitlement. For example, a peasant may choose to go somewhat hungry now to make a productive investment for the future, enhancing the entitlement of the following years and reducing the danger of starvation then. For entitlement analysis in a multi-period setting the initial formulation of the problem would require serious modification and extension.<sup>23</sup>

These changes and amendments can be systematically made without losing the basic rationale of introducing entitlement analysis to understand the problem of hunger and starvation in the modern world. The crucial motivation is to see the centrality of the acquirement problem and to resist the short-cuts of instant economics, no matter how respectable its source.

### 3. Famine and Policy

Focussing on entitlements and acquirement rather than simply on food output and availability has some rather far-reaching implications for food policy. I have tried to discuss

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22. The consequences of particular perceptions of "legitimacy" of intra-family distributions do have something similar to those of legal relationships. Using that perspective "extended exchange entitlement" relations, covering both inter-family and intra-family distributions, have been explored in an integrated structure in my paper, "Women, Technology and Sexual Divisions" (UNCTAD/TT/79, March 5, 1985). The inter-relations may be of real importance in understanding sex bias, e.g., the effect that outside earnings of women have on the divisions within the family. On this see also Ester Boserup's pioneering study, Women's Role in Economic Development (London: Allen & Urwin, 1970).

23. See Poverty and Famines, page 50, foot-note 11. For some important and original ideas in this direction, see Peter Svedberg, "The Economics of Food Insecurity in Developing Countries", mimeographed, Institute for International Economic Studies, Stockholm.

some of these implications elsewhere, but I would like to pick a few issues here for brief comment. In particular, the problems of famine anticipation and relief are among the most serious ones facing the turbulent and traumatic world in which we live, and I shall comment on them briefly from the perspective that I have been outlining.

So far as famine anticipation is concerned, the metric of food output and availability is obviously defective as a basis, for reasons that follow from the preceding discussion.

In fact, the anticipation of famines and their detection at an early stage have often in the past been hampered by undue concentration on this index, and specifically by what we have been calling "Malthusian optimism". Early warnings, as they are sometimes called, may not come at all from the output statistics, and it is necessary to monitor other variables as well, which also influence the entitlements of different vulnerable groups. Employment, wages, prices, etc., all have very direct bearing on the entitlements of various groups.

It is also important to recognise that famines can follow from many different types of causal processes. For example, while in a boom famine food prices will sharply rise, in a slump famine they may not. If the economic change that leads to mass starvation operates through depressing incomes and purchasing powers of large groups of people, food prices may stay low - or rise only relatively little, during the process of pauperisation of these groups. Even when the slump famine is directly related to a crop failure due to, say, a drought, there may possibly be only a relatively modest rise in food prices, if the supply failure is matched by a

corresponding decline in the purchasing power due to the same drought. Indeed, it is easy to see that a fully peasant economy in which food is eaten precisely by those who grow it, a crop failure will subtract from demand what it deducts from supply. The impoverished peasants would of course be later thrown into the rest of the economy - begging, looking for jobs, etc. - but they will arrive there without purchasing ability, and thus need not cause any rise in food prices even later.

Actual economies are not, of course, that pure, but the impact on prices is very contingent on the relative weights of the different types of systems and organisation that make up the affected economy. <sup>24</sup>

Neither food output, nor prices, nor any other variable like that can be taken to be an invariable clue to famine anticipation, and once again there is no substitute to doing a serious economic analysis of the entitlements of all the vulnerable groups. All these variables have possible significance, and it is a question of seeing them as contingently important in terms of what they could do to the ability of different groups to acquire food. The search for some invariable indicator on the basis of which even the economically blind could see an oncoming famine sufficiently early is quite hopeless. Of course a famine will reveal itself sooner or

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24. In the Ethiopian famine in Wollo in 1973, food price rises seem to have been relatively moderate. Indeed, in Dessie, the capital of Wollo, the mid-famine food prices seem to have been comparable with prices outside the famine-affected province. There was more of a price rise in the rural areas, but again apparently not a catastrophic rise, and prices seemed to come down relatively quickly. On the importance of prices as a monitoring device for famine anticipation, see however J.A. Seaman and J.F.J. Holt, "Markets and Famines in the Third World", Disasters, 4 (1980), and P. Cutler, "Famine Forecasting: Prices and Peasant Behavior in Northern Ethiopia", Disasters, 8 (1984).

later, if only through early reports of hunger.<sup>25</sup> But if the aim is to anticipate it even before that, that object cannot be satisfied by some mechanical formula on an "early warning system". The various information on prices, wages, outputs, etc., have to be examined with an economic understanding of the determinants of entitlements of the different occupation groups and of the rich variety of different ways in which the entitlements of one group or another can be undermined.

The different processes involved not only vary a good deal from each other, they may also be far from straightforward. For example, in various famines some occupation groups have been driven to the wall by a fall in the relative price of the food items they sell, e.g., meat sold by pastoral nomads in Harerghe in the Ethiopian famine of 1974, fish sold by fishermen in the Bengal famine of 1943. These groups may survive by selling these food items and buying cheaper calories through the purchase of grains and other less expensive food. A decline in the relative price of meat or fish will, of course, make it easier for the richer parts of the community to eat better, but it can spell disaster for the pastoralist and the fisherman.<sup>26</sup> The observed variables have to be examined in terms of their specific roles in the determination of entitlements of vulnerable groups to make sense of them as signals of turmoil.

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25. One of the major influences on the actual prevention of famine is the speed and force with which early hunger is reported and taken up in political debates. The nature and freedom of the news media, and the power and standing of opposition parties, are of considerable importance in effective prevention of famines. They are also relevant to the priority that may be attached to the elimination of non-acute and persistent "regular" hunger, but the success of the news media and effective opposition in the former respect does not guarantee success in the latter. On this see my "Development: Which Way Now?", Economic Journal, 93 (1983).

26. See Poverty and Famine, chapters 6 and 7.

Turning now from the anticipation to the relief of famines, the traditional form of relief has, of course, been that of providing free food in relief camps and distribution centres. There can be no doubt that relief in this form has saved lives in large scale in various famines around the world. But to understand precisely what free food distribution does, it may be useful to distinguish between two different aspects of the act of providing, which are both involved in the food relief operation. One is to give the destitute the ability to command food, and the other is to give him this ability in the actual form of food itself. Though they are integrated together in this form of relief, they need not in general be thus combined. For example, cash relief may provide the ability to command food without directly giving the food.

A person's ability to command food has two distinct elements, viz., his "pull" and the supplier's "response". In the price mechanism the two elements are integrally related to each other. But in terms of the logistics of providing the person with food, the two elements may in some contexts, be usefully distinguishable. If a person has to starve because he has lost his employment and has no means of buying food, then that is a failure originating on the "pull" side. If, on the other hand, his ability to command food collapses because of absence of supply, or as a result of the cornering of the market by some manipulative traders, then this is a failure arising on the "response" side.

One way of understanding what Adam Smith was really asserting (an issue that was briefly touched on earlier) is to see his primary claim as being one about the nature of "respon-

se failure" in particular, saying nothing at all about "pull failure". His claim was that a response failure will only arise from what he called "a real scarcity", most likely due to natural causes, and not from manipulative actions of traders. He may or may not have been right in this claim, but it is important to note that in this there is no denial of the possibility of "pull failure". Indeed, as is shown by his own analysis of "want, famine and mortality" arising from unemployment and falling wages (I quoted a passage from this earlier), Smith did also outline the possibility of famine originating on the "pull" side. There is nothing particularly puzzling or internally inconsistent in Smith's various pronouncements on famine, if we distinguish between his treatment of pull and that of response. It is not the case, as is often asserted, that Adam Smith believed that hunger could not arise without a crop failure. Also he was not opposed to public support for the deprived, and in particular he was not opposed to providing relief through the Poor Laws (though he did criticize the harshness of some of the requirements that were imposed on the beneficiaries under these laws).<sup>27</sup>

Smith's point that response failure would not arise from collusive action of traders has a direct bearing on the appropriate form of famine relief. If his point is correct, then relief could just as easily be provided by giving the deprived additional income and leaving it to the traders to respond to the new pull through moving food to the cash recipients. It is arguable that Smith did underestimate the extent to which traders can and do, in fact, manipulate markets, but

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27. Smith, Wealth of Nations, Book I, Chapter 8, Part II.

at the same time the merits of cash relief do need serious examination in the context of assessing policy options.

Cash relief may not, of course, be quick enough in getting food to the starving in a situation of severe famine. Directly moving food to the starving may be the only immediate option in some situations of acute famine. There is also the merit of direct food distribution that it tends to have, it appears, a very immediate impact on nutrition, even in non-famine, normal situations, and it seems to do better in this respect than relief through income supplementation.<sup>28</sup> These are points in favour of direct relief through food distribution. There is the further point that cash relief is arguably more prone to corruption, and that the visibility of direct food distribution does provide a better check. And the point about the possibility of manipulative actions of traders cannot, also, by any means be simply dismissed. These are serious points in favour of direct food distribution. But cash relief does have many merits as well.

First, the government's inefficiency in transporting food could be a considerable barrier to famine relief, as indeed some recent experiences have shown. In addition to problems of bureaucracy and red tape, there is the further problem that the transport resources (i.e., vehicles, etc.) in the possession of the private sector may sometimes be hard to mobilise, whereas they would be drawn into use if the actual trading and moving is left to the profit-seeking private sector itself. There is here a genuine pragmatic issue of the speed of response, and it cannot be brushed aside by a simple political judgment one way or the other.

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28. See especially the series of reports published on this subject by the International Food Policy Research Institute.

Second, as was observed in the Wollo famine in 1973 and the Bangladesh famine of 1984, and most spectacularly in the Irish famines of the 1840s, food often does move out of the famine-stricken regions to elsewhere. This tends to happen especially in some cases of slump famine, in which the famine area is short of effective demand. Since such "food countermove-ment" tends to reflect the balance of pulls of different regions, it may be preventable by distributing cash quickly enough in the famine-affected region.

Third, by providing demand for trade and transport, cash relief may help to regenerate the infrastructure of the famine-stricken economy. This has some merit in contrast with ad hoc use of transitory public intervention, which is not meant to continue, and the lasting benefits from expansion of normal trade and transport may be considerable for the local economy.

Fourth, it is arguable that cash relief is more usable for development investment needed for productive improvement, and this cannot be sensibly organised in relief centres. Even "food for work" programmes, which can help in this direction, may sometimes be too unwieldy, given the need for flexibility for such investment activities.

Fifth, living in relief camps is deeply disruptive for normal family life as well as for pursuing normal economic activities. Providing cash relief precisely where the people involved normally reside and work, without having to move them to relief camps, may have very considerable economic and social advantages. Judging from the experience of an innovative "cash for food" project sponsored by UNICEF in Ethiopia, these advantages are indeed quite real. 29

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29 See B.G. Kumar, "The Ethiopian Famine and Relief Measures: An Analysis and Evaluation", UNICEF, 1985. See also Wendy A.Bjoerck, "An Overview of Local Purchase of Food Commodities (LPFC)", UNICEF, 1984, and R. Padmini, "The Local Purchase of Food Commodities: 'Cash for Food' Project, Ethiopia", UNICEF, 1985.

This is not the occasion to try to form an overall judgment of the "net" advantage of one scheme over another. Such judgments would have to be, in any case, extremely contingent on the exact circumstances of the case. But the general distinction between the "pull" aspect and the "response" aspect of entitlement failures is of immediate relevance to the question of the strategy of famine relief. Adam Smith's long shadow fell over many famines in the British Empire over the last two hundred years, with Smith being cited in favour of inaction and letting things be. If the analysis presented here is accepted, that inaction reflected quite the wrong reading of the implications of Smith's economic analysis. If his analysis is correct - and the honours here are probably rather divided - the real Smithian issue in a situation of famine is not "intervention versus non-intervention", but "cash relief versus direct food relief". The force of the arguments on Smith's side cannot be readily dismissed, and the experience of mismanagement of famine relief in many countries has done nothing to reduce the aptness of Smith's question.

#### 4. Food and Food Policy

In comparing the merits of cash relief with food distribution, it was not assumed that there would be more import of food with the latter than with the former. That question - that of food imports from abroad - is quite a distinct one from the form that relief might take. It is however, arguable that in a famine situation direct food distribution is more thoroughly dependent on food import from abroad than a cash relief scheme need be. This is to some extent correct, though direct food distribution may also be based on domestically

acquired food. But if we compare food distribution combined with food imports, on the one hand, and simple cash relief without such imports, on the other, then an arbitrary difference is brought into the contrast which does not belong there. In fact, the issue of food import is a separate one, which should be considered on its own.

This relates to an issue that has often been misunderstood in trying to work out the implications of the entitlement approach to hunger and famines, and in particular the implications of recognising the possibility that famines can occur without any decline in food availability per head. It has sometimes been argued that if a famine is not caused by a decline in food availability, then there cannot be a case for food imports in dealing with the famine.<sup>30</sup> This is, of course, a non sequitur, and a particularly dangerous piece of nonsense. Consider a case in which some people have been reduced to starvation not because of a decline in total supply of food, but because they have fallen behind in the competitive demand for food in a boom famine (as happened, for example, to rural labourers in the Bengal famine of 1943). The fact is that the prices are too high for these victim groups to acquire enough food. Adding to the food supply will typically reduce the food prices and help these deprived groups to acquire food. The fact that the original rise in prices did not result from a fall in availability but from an increase

30. For a forceful presentation of this odd belief, see Peter Bowbrick's paper (with a truly flattering title), "How Professor Sen's Theory Can Cause Famines", presented at the Agricultural Economics Society Conference 1985, at the Annual Conference of the Development Studies Association, 1985. Bowbrick also presents an alleged rebuttal of my analysis of the Bengal famine of 1943, showing commendable neutrality between misstating my views and misreading the implications of his own statements. He also expresses his conviction that my data on food availability in Bengal (derived mostly from the Report of the official Famine Enquiry Commission) are wrong, but he does not go so far as to give alternative figures.

in total demand does not make any difference to the argument.

Similarly, in a slump famine in which some group of people has suffered a decline in their incomes due to, say, unemployment, it may be possible to help that group by reducing the price of food through more imports. Furthermore, in each case import of food can be used to break a famine through public relief measures.<sup>31</sup> This can be done either directly in the form of food distribution, or indirectly through giving cash relief to the famine victims combined with releasing more food in the market to balance the additional demand that would be created. There are, of course, other arguments to be considered in judging pros and cons of food imports, including the problem of incentives for domestic food producers. But to try to reject the case for food imports in a famine situation on the simple ground that the famine has occurred without a decline in food availability (if that is the case) is to make a straightforward mistake in reasoning.

A more interesting question arises if in a famine situation we are, for some reason, simply not in a position to get more food from abroad. Would a system of cash relief then be inflationary, and thus counterproductive? The answer is it would typically be inflationary, but not necessarily counterproductive. Giving the famine victims more purchasing power would add to the total demand for food. But if we want a more equal distribution of food, with some food moving from others to the famine victims, then the only way the market can achieve this (when the total supply is fixed and the money incomes of others cannot be cut) is through this inflationary process. The additional food to be consumed by the famine victims has to

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31. See Poverty and Famines, sections 6.6 and 9.2.

come from others, and this may require that prices should go up to induce others to consume less, so that the famine victims - with their new cash incomes - can buy more. Thus, while having a system of cash reliefs is not an argument against food imports in a famine situation, that system can have some desirable consequences even when food imports are, for some reason, not possible. If our focus is on enhancing the entitlements of famine victims, the creation of some inflationary pressure - within limits - to redistribute food to the famine victims from the rest of the society may well be a sensible policy to pursue.

So far in this lecture my concentration on policy matters has been largely on what may be called short-run issues, including the anticipation and relief of famines. At this late hour, it would be inadvisable to take up more long-run questions, just when I have got only a few minutes left. But it should be clear from the preceding analysis, with its focus on acquirement and entitlements, that long-run policies must be geared to enhancing, securing and guaranteeing entitlements, rather than to some simple formula like expanding food output. I have discussed elsewhere the positive achievements of public food distribution policies in Sri Lanka and China, and also in Kerala in India, along with policies of public health and elementary education.<sup>32</sup> These diverse policy instruments

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32. See my "Public Action and the Quality of Life in Developing Countries," *Oxford Bulletin of Economics and Statistics*, 43 (1981), and "Development: Which Way Now?" *Economic Journal*, 93 (1983). The reading of Sri Lanka's achievements has been subject to some controversy recently. It is certainly true that though Sri Lanka has the highest longevity (69 years) among all the poor countries despite being one of the poorest in terms of GNP per head, the expansion of that longevity has not been very impressive in the period following 1960 for which many international comparisons are made (see S. Bhalla, "Is Sri Lanka an Exception? A Comparative Study of Living Standards," mimeographed, World Bank; to be published in P. Bardhan and T.N. Srinivasan, eds., *Rural Poverty in South Asia*, Columbia University Press). It should be noted that the food distribution policies (including free food) and public measures of health services and education were introduced in Sri Lanka decades earlier, and there is no doubt the life expectation of the Sri Lankan has grown very substantially over these decades. Also the pattern of female mortality being higher than that of the male, which Sri Lanka shared with the rest of South Asia (in contrast with most of the world), also changed over the period. In 1920-22 the life expectation figures were 32.7 years for males and 30.7 for females (see C.M. Langford, "Sex Differentials in Mortality in Sri Lanka: Changes since the 1920's" *Journal of Biosocial Sciences*, 16 (1984), whereas the figures are now 67 and 71 respectively.

belong as much to "food policy" as does the economic policies for expanding the production of food and of other commodities.

However, the problem of production composition in achieving economic expansion is also, *inter alia*, an important one in long-run food policy. This complex problem is often confounded with that of simply expanding food output as such, treating it as largely a matter of increasing food supply. This is particularly so in the discussions of the so-called African food problem. It is, of course, true that food output per head in sub-Saharan Africa has been falling in recent years, and this is certainly one of the major factors in the intensification of hunger in Africa. But food production is not merely a source of food supply in Africa, but also the main source of means of livelihood for large sections of the African population. It is for this reason that food output decline tends to go hand in hand with a collapse of entitlements of the masses in Africa.

The point can be easily seen by comparing and contrasting the experience of sub-Saharan Africa in terms of food output per head *vis-a-vis* those of some countries elsewhere. Take Ethiopia and the Sahel countries, which have all suffered so much from famines. Between 1969-71 and 1980-82, food output per head has fallen by 5 per cent in Chad and Burkina Fasso, 7 per cent in Senegal, 12 per cent in Niger, 17 per cent in Mali, 18 per cent in Ethiopia, and 27 per cent in Mauritania.<sup>33</sup> These are indeed substantial declines. But in the same period,

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33. World Development Review 1984 (Oxford: O.U.P., 1984), Table 6.

and according to the same source of statistics, food output per head has fallen by 5 per cent in Venezuela, 15 per cent in Egypt, 24 per cent in Algeria, 27 per cent in Portugal, 29 per cent in Hong Kong, 30 per cent in Jordan, and 38 per cent in Trinidad and Tobago. The contrast between starvation in sub-Saharan Africa and nothing of the sort in these other countries is not, of course, in the least difficult to explain. Unlike the situation in these other countries, in sub-Saharan Africa a decline in food output is associated with a disastrous decline in entitlements, because the incomes of so many there come from growing food, because they are, generally poor, and because the decline of food output there has not been outweighed or even balanced by increases in non-food (e.g., industrial) output. It is essential to distinguish between (i) food production as a source of income and entitlement, and (ii) food production as a source of supply of the vital commodity food. If the expansion of food production should receive full priority in Africa, the case for it lies primarily in the role of food production in generating entitlements rather than only supply.

There are, of course, other reasons as well for giving priority to food production, in particular the greater security that the growers of food might then have since they would not be dependent on market exchange for acquiring food. This argument has been emphasized by many in recent years, and it is indeed an important consideration, the relevance of which is brought out by the role of market shifts in contributing to some of the famines that have been studied.<sup>34</sup> But this type

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34. Poverty and Famines, Chapters 6-10.

of uncertainty has to be balanced against uncertainties arising from other sources, in particular those related to climatic reasons. In the very long run the uncertainty of depending on unreliable weather conditions in parts of sub-Saharan Africa may well be eliminated by irrigation and afforestation. However, for many years to come this is a serious uncertainty, which must be taken into account along with other factors in the choice of investment policy in sub-Saharan Africa. An argument that is often encountered in public discussion in various forms can be crudely put like this: "Food output in parts of sub-Saharan Africa has suffered a lot because the climate there is so unreliable for food production; therefore let's put all our resources into food production in these countries." This is, of course, a caricature, but even in somewhat more sophisticated forms, this line of argument as a piece of economic reasoning is deeply defective. One does not put all one's eggs in the same highly unreliable basket. The need is surely for diversification of the production pattern in a situation of such uncertainty.

In this lecture I have tried to comment on a number of difficult policy problems. The entitlement approach on its own does not resolve any of these issues. But by focussing on the acquirement problem, and on the major variables influencing acquirement, the entitlement approach provides a general perspective that can be fruitfully used to analyse the phenomenon of hunger as well as the requirements of food policy. I have tried to illustrate some of the uses of the entitlement approach,

and have also discussed what policy insights follow or do not follow from it. I have also claimed that the approach is, with a few exceptions, in line with very old traditions in economics, which have been, in their own way, much preoccupied with the acquirement issue. The challenges of the terrible economic problems of the contemporary world relate closely to those traditional concerns, and call for sustained economic analysis of the determination and use of entitlements of diverse occupation groups.