

Food entitlement and agricultural production

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I am delighted to be here in Florence today - a city of extraordinary beauty, historical splendour, intellectual achievement and aesthetic elegance. I am also very privileged to be a guest of the distinguished University of Florence.

I have been asked by my hosts to speak on "food entitlement and agricultural production." It was in the 1970s that I made my first attempt to argue that the concept of entitlement must be an integral part of the analysis of hunger and starvation.¹ These were very preliminary attempts, and my presentation was, in many ways, geared to the policy debates that were going on at that time. There was considerable scope for argument on the identification of the exact policy implications of focusing on entitlement. Fortunately, the idea of entitlement has received extensive exploration in the writings of many analysts of famine and undernourishment. The literature is well surveyed by Siddiq Osmani and Martin Ravallion.² The implications of entitlement analysis are now much clearer.³

The Concept of Entitlement

What, then, is food entitlement? The basic idea is extremely simple and elementary. Since food and other commodities are not

1) "Famines as Failures of Exchange Entitlements," *Economic and Political Weekly*, 11 (1976), Special Number; "Starvation and Exchange Entitlements: A General Approach and Its Application to the Great Bengal Famine," *Cambridge Journal of Economics*, 1 (March 1977); "Ingredients of Famine Analysis: Availability and Entitlements," *Quarterly Journal of Economics*, 95 (1981); *Poverty and Famines* "An Essay on Entitlement and Deprivation (Oxford: Clarendon Press, 1981).

2) S.R. Osmani, "The Entitlement Approach to Famines: An Assessment," in Kaushik Basu, Prasanta Pattanaik and Kotaro Suzumura, eds., *Choice, Welfare and Development: A Festschrift in Honour of Amartya Sen* (Oxford: Clarendon Press, 1995), and Martin Ravallion, "Famines and Economics," *Journal of Economic Literature*, 35 (1997).

3) On this, see Jean Drèze and Amartya Sen, *Hunger and Public Action* (Oxford: Clarendon Press, 1989).

distributed freely, people's consumption in general - and their ability to consume food in particular - must depend on the baskets of goods and services over which they can respectively establish entitlement and command. With private ownership, the idea of entitlement comes close to that of potential ownership of the goods and services the person can buy, or own directly through self-production. The commodity baskets that a person can own - through purchase or direct production - define that person's commodity entitlements. From that entitlement set, the person can choose any of the alternative baskets. The amount of food in each basket defines his or her ability to consume food, and that determines whether the person is forced to starve or not.

On what do a person's entitlements depend? In a market economy, it must depend *inter alia* on what resources we have, what our endowments are: our respective labour power, and land and other assets we own, which we can either use directly ourselves, or sell in the market. It must also depend on what opportunities the markets offer for what we can sell, and what the prices and availabilities are for the food and other commodities we may hope to buy. Whether we have enough food to eat, or are forced to go hungry, depends thus on our endowments and on the conditions of production and exchange, which together determine our entitlements. If we are not able to buy enough food to satisfy our hunger, then we have to go hungry.

Hunger and starvation are caused by entitlement failure. This is not the only possible cause, since hunger and starvation can also arise for other reasons, for example from our deliberate decision to fast for religious or political reasons. However, hunger and starvation typically arise from involuntary deprivation related to inadequacy of our entitlements.

That was a statement about individual hunger. What about famines that may afflict a community? Famines are typically initiated by severe loss of entitlements of one or more occupation groups, depriving them of the opportunity to command and consume food. They reflect group failures of entitlements. A similar remark can be made about widespread undernourishment, which may be far short of a famine, but may reflect nevertheless group inadequacies of entitlements. It follows that seen in this perspective, the study of hunger-related phenomena, which vary from severe famines to persistent non-extreme undernourishment, calls for analyses of entitlement failures or entitlement inadequacies.

Entitlement analysis can be extended to go beyond legal entitlements related to ownership, and to cover also such issues as the use of social norms and established conventions of sharing, which may determine who is accepted as having "entitlement" to what. For example, the tendency in particular sexist societies to regard that women have less claim to attention within the family than men, or that girls are less entitled to good food than boys are (faced with a shortage), indicate a broadening of the idea of entitlement from legal claims to socially accepted standards that are taken as serious affirmations. Social conventions and norms in sharing food and other commodities can be quite crucial for studying distributional problems, for example to understand the causation of the inequality between women and men, or the special deprivation of girls compared with boys.⁴

Food Production and Food Entitlement

How does food production relate to the concept of food entitlement? Food production does act as one of the important influences on food entitlement. Hunger and starvation may be substantially influenced by the lowness or collapse of food production. For example, a peasant family may have to starve because its output collapses through, say, a drought or a flood. In a different chain of causation, a family of wage earners may have to go hungry because food prices rise too much as a result of a crop failure. To consider another linkage, people employed in agricultural production may have to face hunger or starvation if they lose their jobs through a curtailment of production. Such an influence can originate in non-food agricultural production as well. Food and agricultural production cannot but be an important influence on food entitlements of people, and this influence can work through several distinct channels.

This is needed to be stated at the very outset, particularly because food entitlement has sometimes been seen - quite wrongly -

4) On this see my "Gender and Cooperative Conflict," in Irene Tinker, ed., *Persistent Inequalities* (New York: Oxford University Press, 1990); "Missing Women," *British Medical Journal*, 304 (March 1992); "Gender Inequality and Theories of Justice," in Martha Nussbaum and Jonathan Glover, eds., *Women, Culture and Development* (Oxford: Clarendon Press, 1995).

as being a phenomenon that is altogether independent of food and agricultural production. This could not possibly be the case. Why is it, then, that food entitlement has appeared to be an "alternative" line of analysis of hunger and starvation - very different from analyzing these calamities in terms of problems of food production? What was, then, the debate about in considering the alternative claims of *food output decline* and *food entitlement failure* as the basic foundational concept for analyzing famines and hunger?

The answer is not far to seek. While food entitlement cannot be independent of food production, they are not by any means exactly congruent concepts. Food production is one influence on food entitlement, but there are other influences as well; it cannot be the only influence. Nor is food production necessarily the most important influence on entitlements. Indeed, a famine can occur, or new hunger can emerge, without there being any food output decline whatsoever. Thus, it is not only the case that the impact of food production on hunger and starvation works *through* its influence on the respective entitlements of the people involved (not independently of it), but sometimes a person's or a group's food entitlement may fall sharply without any significant decline - indeed even without any decline *at all* - in food production. Even though food output is one of the determinants of food entitlement, we cannot get an adequate understanding of famines and starvation on the basis of investigating food output alone.

In my first book on famines, *Poverty and Famines*, published in 1981, I presented examples of several famines which had occurred without any substantial fall in food output (such as the Bengal famine of 1943 or Ethiopian famines of 1973), and also of examples of famines that took place in years of peak food availability (such as the Bangladesh famine of 1974).⁵ The possibility of the occurrence of famines or starvation or general undernourishment even in the absence of food production problems is particularly important to emphasize, since public policies and popular discussion are often geared entirely to food production problems, and this can distort policy as well as confuse prevalent debates.

It is quite crucial to avoid the mistake, on the one hand, of taking hunger to be caused entirely by food production problems, and on the

5) *Poverty and Famines*, cited earlier.

other hand, of assuming that food production has no influence on hunger at all. When in 1981, I was trying to bring the analysis of entitlement more into focus and attention, I was acutely aware of the fact that the connection of hunger with food production was widely understood, whereas there was very extensive neglect of the linkage of hunger with factors other than food production which influence food entitlement and through that influence hunger. For example, there was need to show how starvation can arise from unemployment, or from the collapse of markets for specific commodities, or from a sharp rise in food prices caused by an increase in the demand for food. There was need also to point out that the Malthusian indicator of food availability per head can be very dangerous, particularly because a high value of per-capita food availability can generate a false sense of security, which can lead to inaction by the state and consequently a non-prevention of starvation and famines. Indeed, there are many historical examples of policy failures arising from such a mistaken understanding of the causation of famines.⁶

It is fair to say that these issues have been discussed a good deal in recent years. They are certainly much better understood now than they were even a few decades. In fact, we may well have reached the point now where the balance of emphasis can fruitfully shift. To say that hunger is caused by poverty is right, and to relate starvation to the lack of purchasing power and to the inadequacy of income is also right. But that is not the whole story. It is also important to make sure that food production does not fall so far behind demand that food prices rise dramatically. That may well be the way hunger is initiated and how it becomes a major calamity. Without making the mistake of identifying food entitlement with food availability or with food production, and without taking food production to be the only serious influence on food entitlement, we also have to make sure that the influence of food production as *one* of the determinants of food entitlement is widely understood. The prevalence of one mistake is not a reason for making the *opposite* mistake. We have to avoid both.

6) This was, to a considerable extent, true of the Bengal famine of 1943; on this see *Poverty and Famines* (1981), Chapter 6.

Production and Entitlement in the Contemporary World

How does this discussion relate to the problems of food and hunger in the contemporary world? I would argue that it is quite relevant to a fuller understanding the contemporary adversities and for working out a suitably broad set of policy response to these adversities.

We live in a world with persistent hunger, widespread undernourishment and frequent famines.⁷ In order to address the "world food problem," as it is often called, we have to have a clear idea of the nature of the problem. Clarity is sometimes difficult to achieve because the subject of hunger is dominated by preconceptions and often by attempts to understand a very complex problem in excessively narrow terms. What is needed above all is an adequately broad understanding of the different aspects and distinct causes of hunger in the contemporary world. The deprivation of food can take many different forms and have quite disparate causes as well as distinct effects.

The World Food Summit, held in Rome, in November 1996, succeeded in emphasizing - and drawing attention to - the enormity of the so-called food problem in the world. But despite some good papers and commentaries, the thrust of the conference - at least in its official part - failed to take a sufficiently differentiated view of distinct types of food deprivation and their diverse causation. The Summit was only a partial success, which focused much more on the production of food than on the determination of who gets how much food and how. Even though the latter problem - how food is "earned" in the real world - got more attention than it had received in earlier gatherings of this kind, nevertheless the focus was distinctly on the amount of food produced. The production of food is not, as I have just discussed, a negligible issue, but there are many other determinants of hunger that also need urgent attention.

The host of the World Food Summit, the FAO, is perhaps most influential public organization in the world dealing with hunger and food deprivation. The FAO is in charge of both "food" and "agriculture," as its name indicates. It is concerned with hunger (as food deprivation), but it is also concerned with agricultural production

7) See S.R. Osmani, ed., *Nutrition and Poverty* (Oxford: Clarendon Press, 1993).

(including the production of food crops). The dual focus can be sometimes a problem, since it tends to make the F.A.O. give rather immediate priority to the production-related influences on hunger and food deprivation. Indeed, in asking an organization that is responsible for international public policies on agricultural production to take charge *also* of official leadership in removing hunger and food deprivation, the international founders came close to taking a particularly narrow view of the nature and causes of hunger in the world. When FAO was set up in the early years of the United Nations, the inclination to see hunger as resulting only - or at least mainly - from the inadequacy of food output and supply was common. While decades of research has shown that hunger has many other correlates and many other determinants, the hold of that over-simple theory is still quite strong. For example, FAO's estimates of food adequacy or inadequacy of different countries tend still to be mainly geared to the statistics of production and availability of food.

Food production is indeed an important component of solving the problem of hunger in the modern world. But much else also needs to be done, including among other things:

- enhancement of general economic growth;
- expansion of employment and decent rewards for work;
- diversification of economic production (including non-food agricultural production);
- enhancement of medical and health care;
- arrangement of special access to food on the part of vulnerable people (including deprived mothers and small children);
- spread of basic education and literacy;
- strengthening of democracy and the news media;
- reduction of gender-based inequalities.

These different requirements call for an adequately broad analysis, alive to the diversity of causal antecedents that lie behind the many-sided nature of hunger in the contemporary world. At the organizational level, it also calls for better integration of public policies in different fields, involving an active role for the public itself. The problem of hunger cannot be dissociated from these other deprivations, and a broader approach is certainly needed.

It is fortunate for us that these basic connections have become more widely recognised, and this applies to some extent to the FAO as well. Related organisations such as the World Food Programme that

have to deal specifically with urgent intervention in crisis situations have been paying a good deal of systematic attention to the different influences that lead to hunger, which include food production but also other causes. It is very important that the non-production aspects of food deprivation are kept firmly in view in battling the wide prevalence of hunger and starvation in the world.

African Problems

The importance of non-production influences on hunger does not, of course, reduce the simultaneous importance of food production as well, for reasons I have already discussed. One question that is often raised in dealing with future prospects of hunger in the world concerns the adequacy of increases in food production in the light of the growing size of the world population. There is much discussion - and rightly so - on the problem of the so-called "balance" between food production and population growth. We must, however, scrutinize the information on these trends to see to what extent and in what way the balance between food and population is a real difficulty that the world currently faces - or will face in the foreseeable future.

The trend of food output per head has been persistently upwards for the world as a whole and for most regions of the world. The fastest growths have occurred in Asia, including China and India. Africa is the main exception to the regional generalization about increasing food production per unit of population. There is, in fact, need to consider Africa's problems seriously and separately. Africa has been ravaged by political instability, recurrent civil wars, and the undermining of participatory governance during the Cold War, during which both the Soviet Union and the United States had played an irresponsible - and some time even an inciting - role in supporting the overthrow of democratic governments to be replaced by allies of one side or the other in the Cold War. This has had very serious economic and social as well as political consequences. There is *inter alia* a production problem here, but not confined only to food production, nor to the agricultural sector, nor indeed even to "goods" only, since services of education, health care, etc., were also disrupted by political turmoil and instability.

There is much scope for constructive policies now to enhance Africa's production situation, including the production of food and

agricultural commodities. This calls for appropriate economic policies (including agricultural research, institutional reforms, and changes in relative prices).⁸ Africa must also consider the advantages of a more diversified - and less vulnerable - pattern of output. For the long-run economic stability and security of Africa, economic diversification is quite crucial.

The tasks of economic and social change also draw attention to the importance of overcoming military and civil strife, expanding democratic governance, and also developing market institutions. The role of public policy must also cover the expansion of health care, family planning facilities, basic education (especially of women), and social security provisions. All these can contribute - directly and indirectly - to nutritional security, to good health care, and to a more successful overall economy, including a healthy agricultural sector.

Population Growth and Food Demand

Leaving out Africa, where the problems encountered are dominated by the special history of the region, the balance of food and population is not particularly worrisome in the rest of the world.⁹ There is certainly a strongly upward trend. The fact that this rise in food output per head has continued to take place, in nearly every region in the world, despite a sharp fall in the relative price of food vis-a-vis other goods (causing adverse economic incentives for producing food) adds force to the recognition that producing enough food is not in itself the problem. Over the last quarter of a century, the world prices - in real terms - of major food crops (such as rice, wheat, sorghum, maize) have fallen by nearly 70 per cent or so, and still food production *per head* has grown by about 10 per cent.

The relation between food production and population size can, of course, change in the long run, particularly if population growth

8) See the papers of Jean-Philippe Platteau, Francis Idachaba, and Judith Heyer in Jean Drèze and Amartya Sen, eds., *The Political Economy of Hunger* (Oxford: Clarendon Press, 1990), and the references cited there.

9) The likelihood of food production falling behind population growth in the foreseeable future has been seriously undermined by extensive empirical studies; on this see Tim Dyson, *Population and Food: Global Trends and Future Prospects* (London: Routledge, 1996).

remains very fast. But the growth of world population has started to slow down significantly, partly due to the expansion of family planning knowledge and facilities, but also due to other features of social and economic change. Indeed, there is much evidence that fertility rates tend to come down sharply with social development, including general availability of family planning facilities, and also with more empowerment of women, related to such factors as female education and female employment. The explanation is not far to seek. The lives that are immediately battered by very high fertility rates are those of young women, since it shackles them to the constant bearing and rearing of children. Those changes that increase the voice and influence of young women within the society in general and within the family in particular can be expected also to have the effect of reducing fertility rates. Women's empowerment has precisely this effect, drawing on greater female literacy, more gainful employment of women, more ownership of land and other resources by women, greater availability of micro-credit for women's enterprises, and other such factors. The fact the impact of women's empowerment can be very large has been brought out both by inter-country comparisons in the world, and inter-state and inter-district comparisons within India.¹⁰

In dealing with the causal influences that may help to reduce fertility rates, the policy issues and political priorities to consider relate to social changes of this kind. They do not provide grounds for drastic and ill-considered interventions through coercion, which have achieved relatively little - and at very heavy human cost (through reductions in choice and liberty and increases in infant mortality). But changes in power balance within the family, especially through empowerment of women, offers tremendous opportunities for cutting down fertility rates. In fact, very high rates of fertility are now to be found only in countries where women's voice and influence are weak, because of illiteracy, lack of female employment opportunity, women's exclusion from ownership of resources and from micro-credit facilities, and other sources of gender inequality.

10) See particularly Mamta Murthi, Catherine Guio, and Jean Drèze, "Mortality, Fertility, and Gender Bias in India: A District Level Analysis," *Population and Development Review*, December 1995, and also in Jean Drèze and Amartya Sen, *Indian Development: Selected Regional Perspectives* (Delhi: Oxford University Press, 1996). See also Jean Drèze and Mamta Murthi, "Female Literacy and Fertility: Recent Census Evidence from India," mimeographed, Centre for History and Economics, King's College, Cambridge, 1999.

However the demand for food in the future will increasingly come not from population growth, but from reduction of hunger and undernourishment. There is a great deal of hunger and undernourishment in the world. Indeed, even regions that have conquered famines, such as India, often suffer from widespread presence of undernutrition.¹¹ The proportion of undernourished children in sub-Saharan Africa is 20 to 40 cent, which is distressingly high, but it is significantly higher than that in South Asia: between 40 to 60 per cent. As these regions grow richer and more economically affluent, the average food consumption per head will continue to rise. It would be, thus, quite wrong to concentrate only on population growth in calculating future demand for food. The need to expand food production arises from distinct and disparate causes.

A Concluding Remark

There is a strong case for trying to understand the problems of hunger, undernutrition, starvation and famines in the world in terms of inadequacy of food entitlements. This requires a broad economic and social approach, rather than one that is centred exclusively on food or agricultural production.

However, food entitlement is influenced by a number of causally important factors, and food and agricultural productions figure prominently in that list. The fact that food output alone, or the balance between food and population, does not determine the causation of hunger does not indicate that food and agricultural production are unimportant. It is necessary to view the role of production within the broad structure of entitlement analysis. There are a variety of problems of deprivation for which production considerations are *inter alia* important.

Even though there are no compelling overall reasons for being particularly pessimistic about the balance between food and population in the foreseeable future, there are grounds for diagnosing regional problems, particularly in Sub-Saharan Africa. The continuation of famines in this region has inescapable political connections.

11) See Peter Svedberg, *Poverty and Undernutrition: Theory and Measurement* (Oxford: Clarendon Press, forthcoming).

Nevertheless, a full remedy of the situation requires expansion of food production, along with non-food agriculture and also industrial production. Even in other regions, such as South Asia, the prevalence of widespread undernourishment indicates that as economic prosperity comes to these regions, food demand will grow much faster than population growth. We must not, therefore, underestimate the need for expansion in food and agricultural production even in these regions.

Mistakes have been made in the past by trying to explain hunger and starvation exclusively in terms of the food output. That mistake has to be avoided, but this should not be a reason for making the opposite mistake of ignoring the important role of agricultural production, along with other factors, in preventing hunger and starvation. There are dangers from both Scylla and Charybdis, and we have to navigate between them, without hitting either. Agricultural production must be seen as an integral part of entitlement analysis of hunger and deprivation. These connections particularly deserve to be emphasized both because they are causally important and also because they are quite often overlooked. The entitlement perspective on agricultural production deserves our attention and interest.