

# AMARTYA SEN

## The Thoughts Behind the Man

In an age of market-driven economics, Prof Amartya Kumar Sen has championed the cause of social justice and equity. The 1998 Nobel Prize for Economics has come as a mere confirmation of Sen's relevance to the times

Wahiduddin Mahmud

A significant part of Amartya Sen's contributions to economic theory is in the area of social choice theory. As part of welfare economics, the theory deals with the problem of how to aggregate individual preferences into social choice in a logically consistent and reasonable way. The formal constructs of the theory are highly technical and abstract, full of paradoxes and brain-teasers; but Sen's motivation in engaging in these discourses (as was particularly revealed in his subsequent work outside the strict realm of the social choice theory) was very much to do with deriving meaningful insights into the ideas of individual and social well-being. It may be therefore worthwhile to attempt to introduce Sen's ideas on the subject in a nontechnical way to a wider audience other than formally trained economists.

The modern social choice theory started in the beginning of the 1950s with a big bang in the form of Kenneth Arrow's so-called "impossibility theorem". The theorem can be best explained by a simple example with three individuals, 1, 2 and 3, each having his own preference rankings regarding three different social states or situations, x, y and z. Suppose their preference orders are as follows: (1) x, y, z, (2) y, z, x, and (3) z, x, y. It is assumed that a rational individual's preference pattern will be consistent; that is, if x is preferred to y and to z, then x must be preferable to z. We may now attempt to derive social preference rankings by applying some reasonable rule such as majority choice. Thus, society should prefer x to y since this conforms to the preference rankings of two out of three individuals. But the application of this majority rule will lead us to the paradoxical situation where society prefers x to y, y to z, but z to x. This example illustrates the essence of Arrow's impossibility theorem, namely, that there can be no general rule for deriving a social preference ordering from individual orderings in a reasonable way. While a consistent social ordering can indeed be obtained in many cases, the probability of getting inconsistent results is likely to increase as the numbers of individuals and the alternative situations to be ranked increase.

A more concrete example of the impossibility result is provided by the typical problem of dividing a cake among a group of cake-loving individuals. Consider, for example, an initial situation in which each person has an equal share of the cake. If now one person's share is taken away and distributed equally among the rest,

the majority (all but one) will prefer it. This can be repeated by distributing every one else's original share of the cake, and each time it will be preferred by the majority, until at the end everyone is again left with his initial equal share!

Arrow's theory delivered a stunning blow to mainstream welfare economics, since it contested the very existence of the so-called social welfare function widely used for evaluating economic policies. Since then, a vast and rich literature on social choice problems has emerged, seeking means of overcoming Arrow's "impossibility" result to arrive at acceptable social judgments. Sen's contributions have played a key role in the development of this literature.

As Sen has pointed out, much of the limitations of modern welfare economics arise from what he calls an "information crisis" regarding the comparability of different persons' well-being. The traditional view of social welfare, dating back to the work of Jeremy Bentham in the late eighteenth century, used to be the simple utilitarian one, judging social welfare by the size of the sum total of individual utilities. Utility is defined in economics in terms of some mental satisfaction derived from the consumption of commodities. Modern economics, in its single-minded concern for being objective or "scientific" has ruled out any interpersonal comparison of utility, thus rendering the utilitarian approach - and many other related procedures - unworkable. As a result, welfare economics is severely constrained in making social judgments when individual preferences conflict. No comparison can even be made between, say, the value of a unit of income to a person rolling in luxury and to someone in extreme misery. Arrow's impossibility theorem only brings out, albeit in a dramatic way, this tension involved in aggregating individual preferences that are interpersonally non-comparable.

Because of the denial of interpersonal utility comparisons, Arrow's formulation can in fact give rise to very perverse social preferences, even when such preferences do not violate the consistency criterion. To illustrate this, Sen uses a slightly different variant of the above cake-sharing problem, with any given distribution of the cake as a starting point. Under majority rule, aggregate welfare can be persistently "improved" by reducing any one person's share of the cake and distributing the loot among the rest, and this "improving" process can go on until the fall-guy has no portion of cake left. Clearly, the majority rule in Arrow's formulation may be a very odd

way of doing resource allocation or economic planning, and there will be a need for richer utility-related information allowing interpersonal comparisons. Alternatively, some different ideas on fairness and concepts of justice need to be introduced. Much progress has been made in both directions because of the work of Sen and others.

Sen has been critical of the way "rational" human behaviour has been characterized in standard economics, based exclusively on self-interest and entirely devoid of any ethical motivation. The coolly rational types may fill our textbooks, but the world is richer!

he comments. In the context of the social choice theory, Sen has raised and explored an extremely important aspect of the interpretation of individual preferences, namely, that these could reflect a person's self-interest, or - alternatively - his ethical judgment regarding what is good for the society. A distinction may therefore be made, at least in principle, between an exercise of "interest-aggregation" - wherein different people's personal interests are aggregated - and that of "judgment-aggregation" - wherein individual judgments about what is good for the community are aggregated.

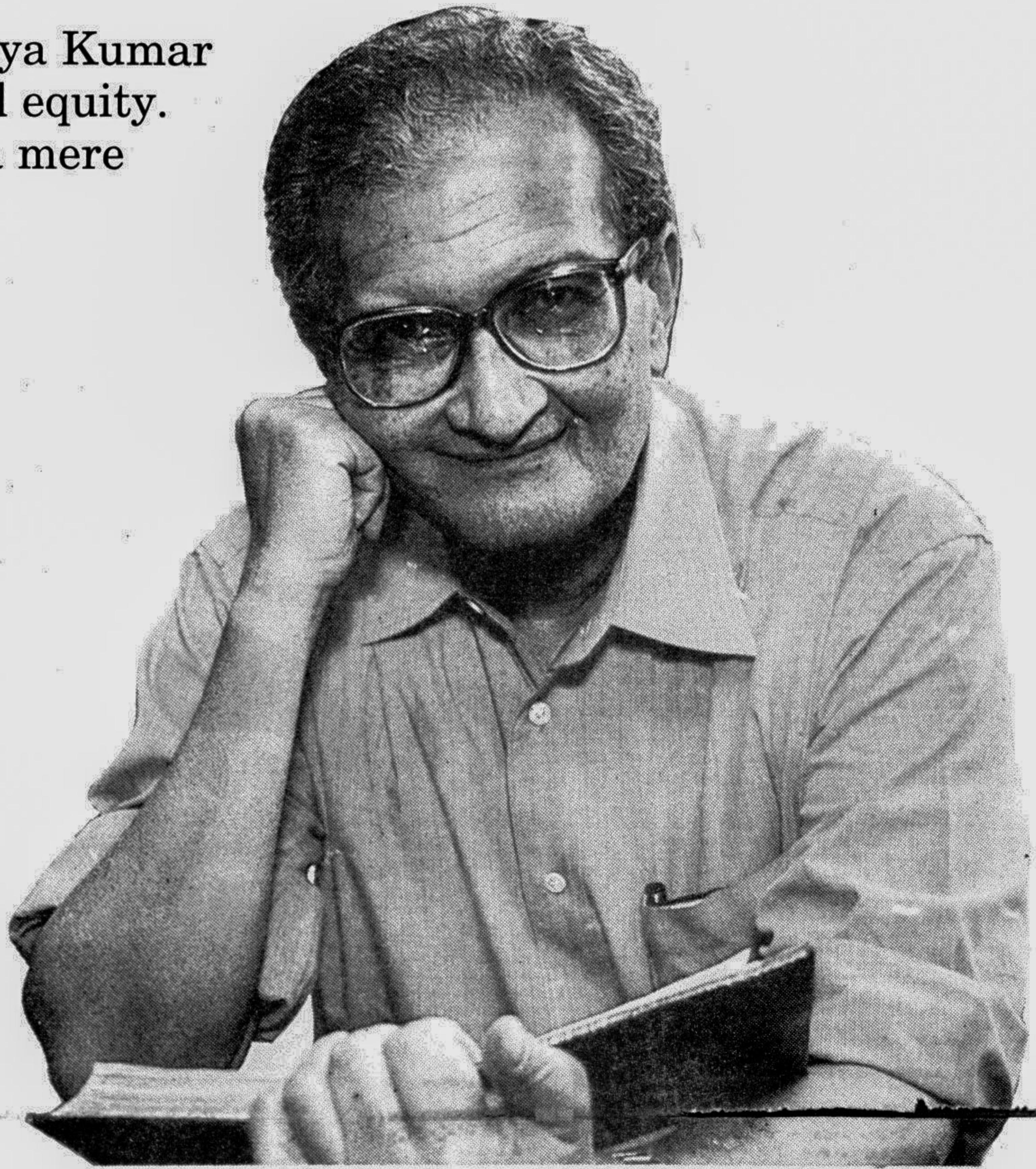
Ethical preferences of individuals are formed in real socialities rather than being randomly given, and are also likely to be far less conflict-ridden compared to self-interested preferences. Thus, once Arrow's problem is formulated in terms of judgment-aggregation, the prospects for deriving consistent and reasonable majority decision may look better. However, disentangling a person's self-interested preferences from the ethical ones in his actual voting behaviour remains a problem. A theoretical answer for this problem is provided by the so-called "impersonal choice" to be based on what his preferences about the social states would have been if he had an equal chance of being in the position of anyone in the society. It is not entirely clear whether and how far this would reflect the person's ethical judgments or rather his probabilistic utility calculus under uncertainty. In any case, the judgment-aggregation exercise based on majority rule may work in many common circumstances, such as in dealing with specific issues of social choice like "positive discrimination" for women or "progressiveness" of the tax system.

Economic inequality as an issue in social ethics has particularly dominated Sen's writings. Not only welfare economics is incapable of making any straightforward judgments of inequality because of inter-personal non-comparability of utility, but also, in Sen's view, utility is an inappropriate and too narrow indicator for judging inequality. In this context, Sen would in fact like to redefine the concepts of both equality and individual well-being. He proposes to evaluate equality in terms of a person's capability and freedom to achieve his well-being objectives rather than the actual level of achievement. A starving man and a fasting one apparently has similar levels of food consumption; but the two men have completely different capabilities: one has the freedom to eat, while the other does not!

Sen also takes a much wider view of an individual's well-being being objectives beyond the narrowly defined concept of utility maximisation. He defines these objectives in terms of various capabilities and related functionings, varying from most elementary ones such as being well-nourished and literate to quite complex and sophisticated ones relating to performing a fulfilling social role. Such an approach to well-being, unlike the one based on the subjective notion of utility, may be more conducive to making equity judgments, since many of these capabilities may be comparable among individuals on the basis of some objective standards. However, the practical problem of finding observable capability-indicators (and aggregating these into an overall index) will remain formidable.

In proposing the above approach to the evaluation of equality, Sen is more concerned with the question of "equality of what?" rather than that of "why equality?", although these are interrelated questions. In the context of social choice theory, it is not altogether clear whether we should consider his approach in terms of its prior ethical plausibility alone, or also in terms of its likelihood to pass the test of a judgment-aggregation exercise discussed above. Sen seems to be making a case for his approach on both grounds. In particular, Sen notes that his approach will be less demanding on interpersonal agreement and more tolerant of unresolved disputes.

By shifting emphasis from utility-based notion of welfare to capabilities and functionings, Sen offers an entirely new and innovative approach to evaluating social arrangements and viewing the question of equality. By doing so, perhaps he may be demanding too much out of economics, which is after all one of many disciplines of studying human behaviour. On the other hand, he may be leading the way towards making economics a much richer, wider and humane discipline. Only time will tell.



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## A People's Economist

Qazi Khaliquzzaman Ahmad

It was 14 October 1998. I was at the Dhaka airport to catch a plane bound for Rome. I was in fact going to North Korea via Rome. Just before the flight was called I phoned home, something I do routinely whenever I go abroad. The time was about 7.30 p.m. Zaheda answered and immediately said that there was exciting news: it was coming through on television. She said, that Amartya Sen had been awarded the 1998 Nobel prize for economics. It was indeed great news, exciting news.

He should in fact have received the honour much earlier. Over the past several years every time the Nobel prize for economics was announced I felt a sense of disappointment which was shared by Zaheda who, being a historian, is deeply sensitive about the high points in the history of the Bangalis. And Amartya Sen becoming the Nobel laureate for economics is indeed a tremendous occasion for the Bangali to feel proud about and rejoice in. It took 85 years for a second Bangali to earn the honour after Rabindra Nath Tagore had done it for literature.

It is an event of great pride for me personally, firstly, because Amartya Sen is a Bangali and secondly, he has won the Nobel prize for economics, a subject of which I am a student. My sense of pride further multiplies because his ancestral home is in Bangladesh, although he grew up mostly in the other part of Bengal. But that has given him the opportunity of combining a sense of belonging to both this part and the other part of Bengal - and to be a source of pride for both. A further reason for my enthusiasm

is that his championing of the cause of the poor and the down-trodden has finally been recognized by the Nobel committee. But I wish to add that, long before the Nobel committee's acceptance of his contribution as

being worthy of recognition he had earned world-wide acclaim for his work on social choice, welfare, and the causes and processes of poverty and famine.

Much has been written about him and on his economics since

the announcement of the Nobel award. And much more will be written. I write this piece to pay my respect to him. In this context, it seems appropriate to mention here that I was in fact going to North Korea on 14 Oc-

tober 1998, one of the two countries he mentioned in his interview to Newsweek on 2 November 1998 to be currently threatened by famine. The other country he mentioned is the Sudan. My trip to North Korea was to lead an FAO/WFP Mission for crop and food assessment (and had to go via Rome for briefing at FAO headquarters there). I had the opportunity, over the past several years, of leading or participating in FAO/WFP crop and food assessment missions to a number of other countries facing food deficits/crises such as Somalia, Angola, Mozambique, Iraq, Cambodia and Laos. In relation to national, household and individual food security, each of these countries faces certain peculiarities of its own from socio-economic, political, and international relations perspectives. However, I wish to discuss here briefly only the case of North Korea.

North Korea remains a communist country with strictly centralized economic and political management. The country suffered from devastating floods in 1995 and 1996 and a debilitating drought in 1997. However, following the transformation of eastern European economies and the collapse of the USSR in the late 1980s and early 1990s, North Korea found itself in a kind of suspended animation. The crucial facilitating role was played by the global news networks. It should, however, be mentioned that the public food distribution system in place in North Korea is comprehensive and highly efficient, without which the situation could not possibly have been tackled as well as it had been.

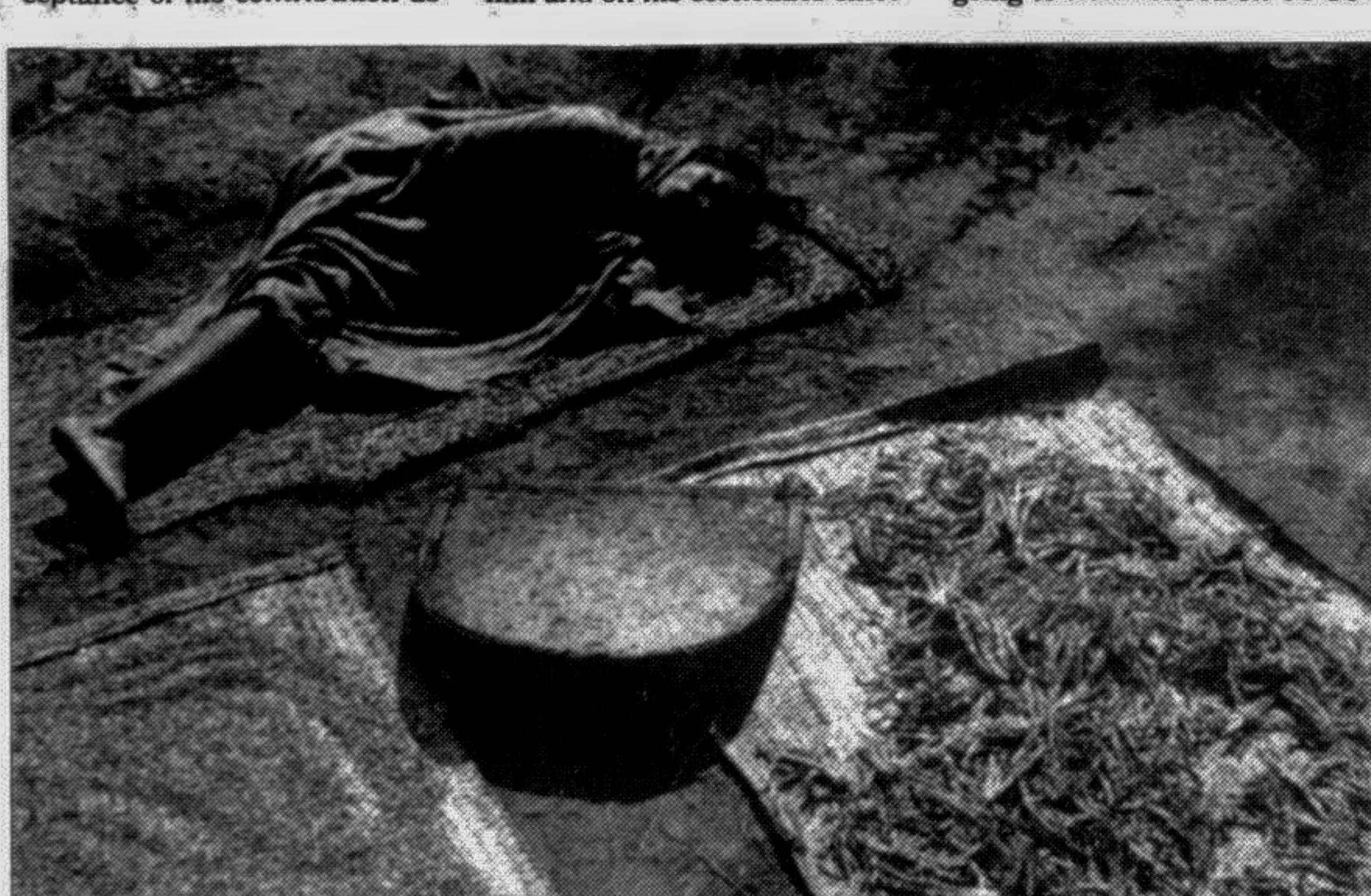
Under the present regime, cooperative and state farms and enterprises are the sources of employment and access to food and purchasing power. Also, there are no markets for food grains, for example, for one to buy one's supplies from even if one had the money. Hence, the question was one of availability of supplies from domestic production and imports (food

aid or commercial) to be channeled through the public distribution system.

Although the most serious food crisis facing North Korea spanning over 1995-97 was averted the country's food production remains in doldrums. Its agriculture faces severe structural problems, as does the country's economy as a whole.

Given a centralized command system running the country and the economy (production, distribution, employment, etc.) and the absence of a free press, the country fulfilled the basic Sen conditions for famine to strike. Famine, however, did not occur because of an external intervention - humanitarian food aid. The multilateral and bilateral food aid agencies moved swiftly to find out the facts and food aid was arranged on a major scale to avert a famine that seemed inevitable. This provision falls within the framework of Sen's entitlement process. The key

guidance is from Amartya Sen. Serious problems arise, he argues, if a country, long pursuing protectionist policies, changed its ways quickly, ignoring internal conditions, to face powerful international competition (see *Gonoshakti*, Calcutta, 16 October 1998, quoting him from his first after Nobel-award news conference). This implies that it cannot be wise for North Korea to adopt a path, without regard to its internal conditions, that will force quick transformation of its centrally managed economy. That is, it is important that the internal conditions are properly evaluated and organized for the country to achieve the best possible results from its economic relations with the outside world. In this context, it may be mentioned that, in North Korea, education up to secondary level is free and compulsory and is implemented fully. As a result, the



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basic human capability or readiness of the people to acquire improved knowledge and economic practices exists among the entire population.

Hence, the potential for the country to make significant economic and social strides is there, which can materialize provided the present difficulties can be overcome and an appropriate rejuvenation process initiated. Indeed, education is a key element as are health, training and other social services in any strategy for the upliftment of the poor and the disadvantaged, Amartya Sen advocates.

It is the less fortunate, the peasants, the workers, the down-trodden and the unemployed who suffer and die when famines or natural disasters strike. The Nobel laureate has shown. The richer sections of the population don't suffer at all, not much anyway. The economically vulnerable people are also politically marginalized, i.e. they are altogether society's underdogs. Hence he argues that the establishment of a democratic order involving all sections of the population and a free press are basic preconditions for their right to be on the active economic and political agendas. He is thus truly a people's economist, a powerful international voice articulating the conditions and needs of society's underdogs as well as of the ways and means of how their unpalatable situation might be addressed. And of course, in terms of theoretical and analytical accomplishments, he is an economists' economist. Altogether, Amartya Sen is one of the world's greatest in the profession. Congratulations to him. Jubilation and celebrations on the part of all of us are as much in order.