

# The 'Enigma' of Hunger: Comment

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Comment on Abhijit Banerjee and Esther Duflo, 'More Than 1 Billion People are Hungry in the World: But what if the experts are wrong?' *Foreign Policy*, May–June 2011.

## I

I have had a frustrating time coming to grips with this article by two well-regarded economists.\* The authors take a long time to not get to the point. They infer a problem that may be present but provide only anecdotal evidence of its existence and do not measure its scale. They ascribe as its cause a single interpretation of a single theory and neglect alternatives. Their argument is convoluted, with contradictions, equivocation and the occasional ludicrous statement. The tone intermittently is condescending: towards the reader, towards their professional peers and towards the intended beneficiaries. The outcome is confusion about the putative problem and no movement towards its resolution.

Despite the catchy title, the focus is not on world hunger. It is instead on one particular type of waste in the world food aid system and two perceived shortcomings in development economics that are presumed to give rise to it. Unfortunately this is not made clear and the reader left to her own devices to arrive at this (or, any) conclusion.

The waste that concerns the authors is in food and nutrition aid that is misused by recipients to obtain less healthy foods or non-food items (we will term this food aid diversion or FAD). Thus if 'the poor aren't starving, but choosing to spend their money on other priorities . . . governments and aid agencies would need to stop pouring money into failed programs . . .'

One professional shortcoming is an excessive reliance by development practitioners on the theory of nutrition-based poverty traps (NBPT). Adherents conflate poverty and hunger and end up counting all poor people also as hungry, something that clearly is not the case. The second deficiency is that development economists do not venture out into the field in large enough

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quantities to become aware of the first limitation. Consequently, the need for food and nutrition assistance is overestimated and waste results.

## II

Banerjee and Duflo (B&D) do not provide evidence of FAD beyond a single China study and solitary anecdote from Morocco. Neither do they attempt to estimate its prevalence, nor suggest ways in which we might do so. The omission is important because it always helps to know the magnitude of a problem while tackling it, but also, in this case, because other significant causes of food aid losses are well known (they themselves point out that in India 'more than half the wheat and one-third of the rice gets "lost" along the way.'). If FAD losses are low relative to other causes of world hunger then B&D's single-minded focus on them risks distracting us from more important determinants. It also seems to color as improper the actions of poor people taking care of themselves as best as they can.

Estimating FAD is a difficult task. We need first to tally all transfer programs linked to food and nutrition – international and national, in cash and in kind. Then we need to estimate how much of that total might be diverted. Unfortunately, the world's food and development agencies are not much help in this, so we are constrained to risk constructing a rough and ready guesstimate using whatever information is available supplemented by conservative though also somewhat heroic assumptions.

The World Food Programme estimates that the total of international food aid in 2009 was 5.7 million tonnes.<sup>1</sup> Unfortunately there are no comparable figures for national food security programs. However, we do know the situation in this regard of the two largest developing countries that between them contain the majority of the world's poor. China did not provide food subsidies in 2009.<sup>2</sup> India in contrast had the largest national program, distributing an average of 32.0 million tonnes of grain annually between 2004 and 2008.<sup>3</sup>

India contains approximately 41 per cent of the world's poor and China 22 per cent.<sup>4</sup> Of the countries with the remaining 37 per cent, only seven had the potential for the sizeable domestic food surpluses on which national programs are built. These seven taken together comprised 21 per cent of the world's poor or half of India's total.<sup>5</sup> If we assume that they provided food aid in the same quantities as India, their contribution would amount to 16.0 million tonnes. The world total for domestic programs would then be 48 million tonnes (32.0 plus 16.0 million). The grand total of international plus domestic food security programs would be 53.7 million tonnes (48.0 million tonnes domestic plus 5.7 million tonnes international). We round that up conservatively to 55 million tonnes.

It is anyone's guess as to how much of this might be lost to FAD. Whatever verisimilitude of scientific investigation we may have laid claim to earlier, now vanishes. But we do know to reduce the 55 million tonnes by 30

per cent for losses in transport, storage, bureaucratic inefficiency and corruption.<sup>6</sup> This leaves 38.5 million tonnes for actual distribution. We once again round this up generously to 40 million tonnes. Finally, a conservative assumption for FAD might be that as much as 20 per cent is diverted (one in five entire allotments). This would put the worldwide total for FAD at 8.0 million tonnes.

### III

Eight million tonnes of food is a very large quantity. At this rate the annual losses from FAD would be equal to almost one and a half times all international food aid.<sup>7</sup> But 8.0 million tonnes also is only 0.6 per cent (six-tenths of one per cent) of the 1.3 billion tonnes of food that the Swedish Institute for Food and Biology (SIK) is lost or wasted every year.<sup>8</sup> This is equivalent to one hundred and sixty six times our conservative estimate of FAD.

Europe and North America account for 670 million tons and poorer nations 630 million tonnes. This rough equivalence between industrialised and developing countries does not hold when loss and waste are separated and computed on a per capita basis. Food losses in Europe and North America are roughly double those in Sub-Saharan Africa, and South and Southeast Asia (290 kilos and 150 kilos respectively per person) and the disparity in waste is much larger.<sup>9</sup> Europeans and North Americans throw away a dozen times more edible food annually as people in Sub-Saharan Africa and South and Southeast Asia (105 kilos and 9 kilos respectively).

Food wasted by consumers makes for a better comparison with FAD because both outcomes are individual as opposed to institutional choices. SIK reports that consumers in the industrialised world wasted 220 million tonnes of food in 2010, or twenty seven times our (already high) estimate of FAD. In the developing world consumers wasted 59 million tonnes, or seven and half times FAD approximately. The world total of 279 million tonnes is thirty five times FAD.<sup>10</sup> These multiples are even greater when we factor in the realisation that some portion of FAD is 'waste' in name only, that is, while donor-intent may not have been followed, the food nevertheless was consumed.

All considered therefore, FAD's contribution to the world food problem is relatively small.

### IV

FAD is rendered even more insignificant for world hunger when the impact of the world food system is considered beyond loss and waste. The damage to health and nutrition from imbalances in agricultural power and production is incomparably greater than the decisions of some poor people in some poor countries regarding the disposition of their entitlements.

Food long ago became a commodity and today to a large extent is the domain of multinational business. The market is huge and imperfect and the major players are large, concentrated, politically powerful and highly profitable. Global retail food sales topped \$7.18 *trillion* in 2009<sup>11</sup> and 2008 revenue per employee in food production agribusiness was \$1.27 million. This is in 'stark contrast to the incomes of farmers and fishers from developing countries whose products keep the companies in business.'<sup>12</sup> The ten largest food retailers accounted for eleven per cent of the market and the hundred largest 26 per cent.<sup>13</sup> Thousands of seed companies and government breeding institutions have given way to ten corporations who now have more than two-thirds of the proprietary seed market.<sup>14</sup> Ten pesticide companies similarly have dislodged dozens of firms and now control almost ninety per cent of world agrochemical sales. Four of these companies are common to both lists.<sup>15</sup> Similarly ten biotech corporations now account for three-quarters of industry revenue. 'Current systems of global governance are poorly equipped to address the concentration of market power . . . the continued commitment to industrial agriculture lead(s) towards greater corporate concentration in developing country agriculture.'<sup>16</sup>

Agribusinesses in the US hired 1,081 lobbyists in 2011 and spent \$123.6 million.<sup>17</sup> Larger players also are able to convene regularly with influential decision makers at such annual events as the World Economic Forum at Davos and the Norman E. Borlaug International Symposium.<sup>18</sup> One result is that public policy has been steered away from small holders, organic agricultures, food sovereignty and social welfare to large-scale industrial agriculture, reductions in domestic investment in small farms and trade liberalisation. Agriculture receives only three per cent of overseas development assistance and 4 per cent of humanitarian aid even though it accounts for a third of gross domestic product and two thirds of employment in countries with protracted food crises.<sup>19</sup> The 2007–11 food crises have brought about a minor reversal of these trends but 'with a strong bias towards the private sector (through) public private partnerships . . . (these) are problematic when the public sector is weak (or) simply to insure private investors against risk.'<sup>20</sup>

Food security policies have not been exempt from these pressures. Swaminathan (2007) notes that in India:

economic liberalisation has seen a severe setback to some of our major programmes of food security. Three key objectives of economic reforms . . . to reduce food subsidies, to leave distribution to the market and to undermine food policy intervention and subsidies to the 'poorest of the poor' have given India the record for the absolute number of persons suffering chronic hunger and malnutrition . . . *Policy making and implementation have failed miserably in respect of tacking this crisis of malnutrition* (emphasis in original).

Smallholders who grow staple crops for local markets substantially are left to their own devices. On the other hand, the penetration of giant international agribusiness into local agriculture through the use of contract farming has brought the methods of industrial agriculture to some rural areas.<sup>21</sup> These contracts almost invariably are between highly unequal parties and they pressure poor rural dwellers to produce to strict quality standards while assuming much of the risk, purchasing 'company' inputs and continually lowering prices.<sup>22</sup>

The market power of the food and agriculture lobby also had a significant hand in the passage of the U.S. Commodity Futures Modernisation Act of 2000 that authorised speculation in agricultural commodities. This added to the profits of large players and further disadvantaged smaller and weaker ones. Speculation in agricultural commodities jumped 2,400 per cent in the five years between 2003 and 2008, from \$13 to \$317 billion annually.<sup>23</sup> '(A) growing body of literature shows strong links between the increase in commodity market speculation and the recent spikes in food prices.'<sup>24</sup>

Thus it can be no surprise that in 2008 '(F)ood production was the fastest growing global industry by revenue . . . with an average increase in revenues of 48.8 per cent for companies in the Global 500.'<sup>25</sup> Food sector consumer product profits were among the highest that year with an average return on revenues of 11.9 per cent and many individual corporations did much better.<sup>26</sup>

It also should not astonish that these phenomenal results should come at the cost of the more vulnerable portions of the product chain or that they should occur concurrently with growing hunger. Vulnerability in this case is not restricted to poor countries alone. The U.S. Government Accountability Office reports that from 1982 to 2009 U.S. food prices rose at four times the rate of prices paid to farmers (128 per cent and 34 per cent respectively).<sup>27</sup> It was the same in the EU, where increasing prices benefited supermarkets more than growers. Globally, 2007–08 saw sharp increases in food prices despite record cereal harvests, and record agribusiness profits concurrently with increasing numbers of hungry people.

We have long had a world food system where a large percentage of the people who are closest to food production are also the ones who suffer most from hunger and malnutrition. (S)mall-farm families grow seventy per cent of the world's food, yet rural people also make up about half of the 925 million people going hungry.<sup>28</sup> Acknowledging this further diminishes FAD's role in world hunger. Its magnitude, even as here overestimated, pales in comparison with the combined depredations of the political economy of food. This is not to legitimise or even accept waste in international development. But it is to argue that FAD should be put in context, lest by focusing on what is probably one of the less damaging aspects of all food related behaviors we let slip the major culprits. We will return to this question once we gain a little more clarity about this phenomenon that so concerns B&D.

## V

And that, of course, is the essential difficulty. Instead of identifying a problem and then exploring its roots and resolutions, B&D see fit to proceed in reverse. They first announce the cause – NBPT – of a problem yet to be defined and then work backwards to try to establish it as FAD. To do this, they produce a quasi-Socratic exposition that flits from one question to another, addresses only a few of them, and answers none satisfactorily. Even the seminal lead-off query of whether ‘there really are more than a billion people going to bed hungry each night’ garners only a hesitant and equivocal: ‘(S)o perhaps there aren’t a billion “hungry” people in the world after all’ late in the piece.

My troubles started with the first line: ‘For many in the West, poverty is almost synonymous with hunger.’ How often have I scrawled: ‘How many is many? What is the West? How much is almost?’ on papers with such statements. Since B&D go on to target development professionals as a class, it clearly is not the geographic West that they had in mind, and so perhaps ‘the Global North’ or some other such contemporary jargon would have been a more appropriate. This is a small point but it illustrates the loose writing in the entire article.

Having posed their seminal question of whether it is ‘really true’ that ‘more **than 1 billion people** (bold in original) are suffering from world hunger . . . Are there really more than a billion people going to bed hungry each night,’ the authors start their ‘answer’ with a digression that touts their own wide-ranging international travels to collect data and ‘speak to poor people about what they eat and what else they buy.’ This is followed immediately by a second digression (detour off a detour) about a professional contretemps between two other prominent economists concerning markets versus development aid.

B&D’s own field researches lead them to conclude that the story of hunger and poverty ‘is far more complex than one statistic or grand theory.’ In a statement dangerously redolent of Ronald Reagan’s old Welfare Queen argument, they discover a many-sided world ‘where those without enough to eat may save up to buy a TV instead.’ Other experts ‘unfortunately’ do not share the authors’ nuanced views and end up promoting ‘sweeping, ideological solutions to problems that defy one-size-fits-all answers’ and argue with each other while paying scant attention to ‘the facts on the ground (that) bear little resemblance to the fierce policy battles they wage.’ Jeffrey Sachs and William Easterly are identified as two exemplars of this combative genre.

Let us leave aside the questionable logic of beginning an examination of the incidence of hunger in the world with a foray into someone else’s internecine arguments about the merits of markets versus aid. More important are the questionable assertions that crop up so early in the exposition.

Now the complexity of poverty has long been news. It is an established part of the received wisdom in the field of development. True, development

economics came upon it a little later than other parts of social science, but that still was decades ago and many of its most distinguished practitioners are known for their work in the area.

The complexity is well accepted because tens of thousands of development professionals indeed have 'step(ped) out of the office and look(ed) more carefully at the world' over the years, in 'rural villages and teeming urban slums' just as B&D have done. A Google book search with the word 'poverty' yields 6.8 million titles. One with 'international development' begets a million entries<sup>29</sup> and an inquiry containing both 'poverty' and 'household survey data' comes up with 4,640 items. A Google Scholar inquiry with the same combination scores 11,200 journal articles.<sup>30</sup>

Granted many of these studies are about industrialised countries, but a very large number nevertheless do relate to poor nations. Many are the work of social scientists other than economists, so B&D may have overlooked or disregarded them, but development economics too is focused heavily on poverty fieldwork, including at its non-academic nerve center of the World Bank.<sup>31</sup> Perhaps B&D do not count macro-or blanket surveys, but once again there have been hundreds, if not thousands of detailed examinations of the ways in which poor people try to eke out an existence, including major sets of studies by the U.S. Agency for International Development and the U.N. Research Institute for Social Research in the nineteen seventies and eighties.<sup>32</sup> Or perhaps the authors are of the view that the quality of the other fieldwork does not match the standards of their own randomised control trials (RCT). In this, of course, they may be right, but they provide no evidence for that.

So, for all their faults, development professionals including economists may not be accused of skimping on fieldwork. A more accurate indictment would be that there has been too much fieldwork, too many slip shod analyses, too much duplication of effort stemming from too little institutional memory, too many trips taken for professional advancement or satisfaction in travel rather than genuine inquiry or service, and, most importantly, too many narrow investigations that eschew resolutely issues of power and class. It is the substance of the fieldwork that needs challenging and not its quantity.

It is not for me to defend either Sachs or Easterly but neither economist fits the over-determined aid-or-market straightjacket that B&D devise for them. Sachs still supports markets, if less unequivocally perhaps than once he did, and his putative shortcomings most definitely do not include a one-size-fits-all mentality, or not paying attention to facts on the ground. *The End of Poverty* is full of nuanced accounts of the successes and failures of development projects and his chapter on clinical economics uses medical analogy in many of the same ways that B&D do. Our authors may argue that his analyses and prescriptions do not measure up to RCT standards but that again is a separate issue.

It is true that the unvarying and simplistic algorithm of ‘getting the prices right’ was a prime staple of development economics for many decades, and thus of one of the ‘sweeping’ panaceas that B&D decry, but that dictum has come and gone. Here, what all the authors seem to have done is to set up straw people off to score some points.

## VI

With neither empirical evidence nor numerical estimates for FAD, the authors are compelled to make the case theoretically. They seem to want to argue that its central cause is an oversupply of food aid. This allows people who do not need such assistance to exchange their entitlements for other things. The oversupply results from a misunderstanding or misapplication of the theory of nutrition-based poverty traps that ends up allowing the incidence of hunger to be overestimated. There is, in addition, the possibility that the theory itself may no longer be applicable because hunger-based poverty traps today are not ‘a big part of the story of the persistence of poverty on a large scale.’ B&D give us no clue about the derivation of these propositions and tie themselves in knots trying to establish them.

The ideas seem to have originated from B&D’s fieldwork during which they discovered that hungry people sometimes spend their limited resources on things other than nutritious foods. Some prefer less wholesome but better tasting fare while others opt for non-food products like ‘televisions, DVD players and cell phones.’ When this happens using food security entitlements, the aid is diverted and wasted.

The authors offer a sole example for each of the two types of cases. A China case study documents grain subsidies being diverted into less nutritious foods. A Moroccan anecdote illustrates the second syndrome of poor people preferring consumer goods to better nutrition. (This is not a true example in a technical sense because the resources used for the televisions were private and not public, but we let that pass.)

B&D reason, or more accurately, proclaim, that the behavior is sparked by more food and nutrition assistance being made available than is warranted. Some people get aid who do not deserve it and others receive more than they need, allowing both sets to divert their entitlements. No evidence is provided for the alleged oversupply.

So now the authors are obliged to explain why development professionals would make the egregious error of providing nutrition assistance to those who do not deserve it. This, they declare to be the result of theoretical confusions about NBPT. The theory posits that physical weakness caused by hunger is an important factor holding people back from development. The hungry also tend to be poor and so nutritional assistance gives them a helping hand out of poverty. The theory does not make the reverse association, that poor people also are hungry, but B&D suggest that aid providers

mistakenly do and give food aid to individuals who suffer from poverty but not hunger. Thus, aid is inflated and waste results.

VII

I am not privy to food security decisions but it is highly unlikely that NBPT is the only, or even the main, basis on which they are made, if for no other reason than that many professions and disciplines beyond economics are involved, particularly from the health sciences.

It also is unlikely that those economists who do participate in the process make the mistake of conflating hunger and poverty. Some may of course, but the authors tar all with this brush, alleging that the 'international community' (whatever that is) has classified 'a "poor" person (h)as essentially . . . someone without enough to eat.' Amazingly, this statement contradicts diametrically the immediately preceding one. That more balanced definition includes other 'indispensible' elements of poverty: 'the thresholds for determining that someone was poor were originally calculated as the budget necessary to buy a certain number of calories, *plus some other indispensable purchases . . .*' (emphasis added).

The question of conflation is put to rest relatively easily. The table below compares World Bank poverty numbers with FAO's malnutrition/ chronic hunger estimates over roughly the same time periods. The Bank's figures consistently are higher by between a half- to a full- order of magnitude. FAO is an important player in deciding the quantum of food and nutrition security assistance. It is unlikely that the agency would disregard its own technical estimates of hunger and malnutrition in favor of the World Bank's broader measures of poverty. We may conclude therefore that the likelihood of conflation is small in practice and that the lower (and truer) quantities were applied in determining the size and scope of food and nutrition programmes.<sup>33</sup>

Of course, there are significant problems in accurately assessing the nutritional condition of huge populations spread over the globe.<sup>34</sup> So there still is a chance and perhaps a good one that the FAO estimates are on the high

Table 1: World Bank estimates of poverty and FAO estimates of hunger, various years

Number of people who ('000,000)			
Live on less than \$1.25 per day (World Bank)	Period	Are hungry (FAO)	Period
1,831	1981	900	1981
1,750	1990	823	1990-92
1,607	1999	815	1997-99
1,299	2005	854	2001-03
1,345	2010	925	2010

Sources: Poverty: World Bank Research Development Group, various years. Malnutrition: FAO: *The State of Food Insecurity in the World*, various years

side, but that is a separate category of error to one of misunderstanding or misusing NBPT. Also and much more important, given the razor thin survival edge of poor communities, and the huge amounts of food lost and wasted in wealthier parts of society, is it not more humane to err on the side of extending too much assistance rather than providing too little out of some misplaced fixation with exactitude?

Finally, it would have behooved B&D to mention some of the other and possibly more important factors that influence food aid decisions. Food security assistance has a significant political and economic component in addition to a humanitarian one. Internationally, it is used to bolster political allies, engage new ones, manage food surpluses and create future markets for donor products. Domestically and internationally, it is a useful tool for preserving social peace. To the extent that there might be an oversupply of food aid, it probably has to do more with these forces than theoretical misconceptions about NBPT.

### VIII

Blaming FAD on misconceptions about NBPT leaves the bulk of food aid unaffected by the problem. Clearly, the alleged waste would be much greater if it could be demonstrated in addition that the theory itself was wrong, or that it no longer applied, in which case (almost) all food aid could be considered wasted. That is what the authors turn to next in a series of intellectual gyrations that form the heart of the article: '*(T)he world we live in today is for the most part too rich for the occasional lack of food to be a big part of the story of the persistence of poverty on a large scale*' (emphasis added).

We may disregard the apparent callousness of the reference to an 'occasional lack of food' in a world burdened with severe malnourishment. It is one of many such statements that are the result of loose writing and editing rather than insensitivity.<sup>35</sup> More important is the need to follow the reasoning that leads to such outlandish pronouncements even if made inadvertently or only for argument's sake.

B&D explain NBPT through a long anecdote about an Indonesian casual agricultural labourer named Pak Solhin 'who explained to us *exactly* (italics added) how a poverty trap worked.' Price increases for agricultural inputs had forced Mr. Sohlin's employer to economise. He decided to reduce employees rather than cut wages and Mr. Sohlin was released. This brought on a vicious cycle of unemployment leading to undernourishment leading to prolonged unemployment. 'There's the poverty trap: The poor get poorer and the rich get richer and eat even better, and get stronger and even richer, and the gap keeps increasing.'

Many things come to mind. The theory of NBPT is not about distribution *per se* even though, of course, that topic permeates all development discourse. It is about endemic malnutrition keeping people poor in absolute terms and this would remain the case even when the relative standing of the

rich declined. Nor does the theory suggest that those who are better off have progressed through more and improved eating!

B&D seem to accept Mr. Sohlin's single-factor explanation for his predicament. He may have been right about his own situation, in that it was physical weakness alone that kept him from finding work, but that is not a generalisable proposition for Indonesia or for other countries involved in the transition to industrial agriculture.<sup>36</sup> It is the lack of work in the countryside that is the primary problem and not a lack of food, as indeed demonstrated in Mr. Sohlin's case too.

B&D also might have raised other pertinent issues, at least in the article if not with Mr. Sohlin. What pressures did his employer face (in common with farmers in most poor countries) to substitute energy intensive and labour displacing inputs like inorganic fertilizer, pesticides and fuel for human effort? What role did corporate concentration in international input markets play in driving up the prices that led to Mr. Sohlin's dismissal?<sup>37</sup> Why were there no jobs available in the rural-industry sector, or urban jobs, during the period of agricultural to industrial transition? And even, what if his parents had had fewer than thirteen children? Mr. Sohlin's plight had many contributing features beyond nutrition that could have been identified with benefit.

Having used the anecdote to illustrate and validate to their own satisfaction the theory of NBPT<sup>38</sup> the authors attempt to demonstrate that it no longer holds in practice. Now if, as the authors maintain, the theoretical connection between hunger and poverty is sound, then there are only two ways in which the practical link may be shown to be outmoded. Either there is no poverty today, or no hunger. Since impoverishment is a glaring and inescapable condition worldwide, B&D are constrained to argue that it is hunger that has died out. Fortunately for them, this turns out to be a more amenable proposition since unlike poverty, hunger has multiple forms, many of which not easily discernable.

B&D's case for a seismic reduction in world hunger is built around evidence from India suggesting that poor people are eating less even they have the chance to eat more. Some of the 'evidence' comes from nutritional measurements and some from self-reported hunger surveys. According to the authors 'the real story of nutrition in India over the last quarter century . . . is that Indians . . . are in fact eating less and less.' They refer to the work of Deaton and Dreze who found that per capita calorie consumption in the country had declined during a period of rapid economic growth ('when Indians are making more money than ever before' in B&D's words) and lower food prices. B&D infer from this that 'the poor do not seem to want to eat much more even when they can.'

Of course, these data tell us nothing of the sort. For one thing they are averaged over approximately a billion people comprised of numerous social classes and groups and distributed over a huge geographic area. In practical

terms, they are almost meaningless. Disaggregating some of the data, we find that per capita calorie consumption actually increased in the lowest decile and quartile in rural India from 1983 to 2004–05.<sup>39</sup> The growth was minimal – only 1.5 per cent approximately in both cases, plus it started from a very low base so the health benefits would have been marginal at best, but it does raise questions about the eating-less-out-of-volition hypothesis.

More important, the data are about condition and not intent. They say nothing about the reasons for the drop in calorie consumption for any of the asset and income groups, whether they arose from declining demand or from distress.<sup>40</sup> To suggest on this basis alone that the reduction was voluntary on the part of the poor is a herculean leap of illogic.

This inexplicable misinterpretation of massively averaged data is trumped by the authors' reaction to another of Deaton and Dreze's findings, that the consumption of all other nutrients except fat also went 'down among all groups, even the poorest.' We would expect that this grim assessment of the deteriorating nutritional status of the most vulnerable portions of society from an already low base would raise innumerable red flags and intensify the search for the offending causes. Instead, B&D note sanguinely that since 'Indians' (all billion of them?) had been 'making more money' at that time and that food prices had been decreasing, 'Indians (all billion of them?) began eating less' possibly 'because of improvements in water and sanitation (and) the decline of heavy physical work.'<sup>41</sup> Thus are the very real tribulations of the most beleaguered portions of society magically vaporised through averaged incorporation into the larger and better-off entity!

No wonder then that for the authors, India is a 'great puzzle' in the context of food crises. Addressing the problems of huge and highly differentiated populations containing enormous inequities via sweeping average generalisations necessarily must lead to mental commotion. Much better if B&D had heeded A. K. Sen's simple dictum of entitlement that they mention but do not seem to apply. The availability of food is separate to access. Access comes from owning resources. When these are distributed unevenly, parts of the population remain malnourished and hungry even when there is physical food enough and to spare, and even in the face of epidemics of obesity in other sections of society.<sup>42</sup>

In their anxiety to demonstrate that the poor reduced their consumption out of choice and not necessity, the authors embark next on possibly the most bizarre portion of the article. They note that the world is 'theoretically capable of feeding every person on the planet . . . There is no absolute scarcity . . . Starvation still exists but only as the result of the way food gets shared among us.' Then, instead of developing this sad and critical theme to investigate the unfortunate (lack of) sharing practices that create scarcity out of plenty, they calculate 'the cost of the cheapest diet sufficient to give 2,400 calories' and settle on 'eating only bananas and eggs . . . day in, day out' at a

cost of 21 cents a day based on Philippine prices. Therefore, *'so long as people are prepared to eat bananas and eggs when they need to, we should find very few people stuck in poverty because they do not get enough to eat'* (emphasis added).

Hyperbole and provocation have their uses in discourse but they must be deployed appropriately and sensitively or else they misfire. Eggs and bananas? Why this combination? Why the Philippines? How many other countries and combinations were considered? (And what about poor vegetarians by the way?) And why 'prepared to eat' as if it is a choice? Most important, as economists, what do the authors think would happen to the price of eggs, bananas or any initially cheap product when demand spiked because lots of poor folk started adopting the strategy? The mind reels.<sup>43</sup>

Next the authors deal with self-reported hunger surveys to reinforce their point about a voluntary decrease in caloric consumption among the poor in India: 'Indian surveys bear this out . . . the percentage of people who say that they do not have enough food has dropped . . . from seventeen per cent in 1983 to two per cent in 2004.'

There is no doubt that strong economic growth has lifted many people out of hunger in India, even if the improvement may not be as large as indicated due to problems with self-reported studies:

Subjective hunger . . . is a matter of articulation – people or populations have to indicate in some fashion that they are going hungry. This means there must be a state of not being hungry, so that the state of being hungry can be recognised as such. What if, not having such a base level, people cannot recognise or articulate hunger? What if they have always had less food than they need? If the body gets used to having less food than needed, then hunger may never be articulated. Self-reported hunger is also difficult to measure, since perceptions of hunger differ from one person to another.<sup>44</sup>

Another caveat is that interviewees tend to be men who either are not fully aware of the dietary condition of their families beyond themselves or reluctant to own up publicly to their inadequacies in providing for them. Of course, this shortcoming would be common to all such surveys, but its influence may have been greater in 2004, when generally improving conditions might have made it more difficult for breadwinners to admit failure. A third complication is that:

a single probing question may not be adequately precise and objective<sup>45</sup> to get the full story. This is exacerbated in our case by the fact that the single question also changed over time. Earlier respondents were asked if they and their families had access to 'two square meals a day.' Later this became access to 'enough food every day.'

The authors' seeming insistence on establishing that hunger is on the wane is all the more surprising given that less than a dozen paragraphs later,

they lay out the nutritional plight of India's poor: 'Indians . . . and their children are certainly not well nourished by any objective standard. Anemia is rampant, body-mass indices are some of the lowest in the world; almost half of children under five are much too short for their age, and one-fifth are so skinny as to be considered "wasted".' Then, instead of addressing the contradictions that cry out for comment if not resolution, they launch into the last of their detours. This time it is a homily on the negative effects of undernourishment and the self-defeating if still understandable forces that cause poor people not to take advantage of all available opportunities for better nourishment. The authors consider various factors and finally, with the Moroccan anecdote offered as an example of one of them – amazingly just leave it at that!

## IX

So at the end we are left wondering, like Dickens' charity boy after he had mastered the alphabet, whether it was worth going through so much to learn so little.<sup>46</sup> We are no clearer about how many hungry people there are in the world, or how to gauge their numbers, or how much food and nutrition assistance they need, or what mistakes are made in food and nutrition assistance, and if so what caused the errors. All we did learn is that many decisions made by food aid recipients regarding FAD are understandable and sometimes even unavoidable.

Our own investigation revealed, however imperfectly, that the damage FAD does probably is miniscule compared to the combination of food losses and food waste. The gap is even greater when the predations of the world food system are included. Plus, if indeed FAD does result from an over supply of aid, the cause more likely is realpolitik in international relations, food surplus politics in donor countries, and concerns about social peace in developing ones, rather than some misapplication of economic theory.

Applying this broader canvas serves also to clarify many of the issues that perplex B&D. No longer would they be 'vaguely troubled' by the presence of acute hunger in 'prosperous Java, where, even after the increase in food prices in 2007 and 2008, there was clearly plenty of food available.' They would be able to explain to Mr. Sohlin that the small farmers who were unwilling 'to offer him the extra bit of nutrition that would make him productive in return for a full day's work' were not there to create employment or promote social good but to make a living, and that they clearly felt that they could do that better by not hiring him full time.<sup>47</sup> And 'the great puzzle of India in this age of food crises' would no longer be a puzzle, or at least not the puzzle that baffles them. When informed that 'the consumption of all nutrients except fat . . . appears to have gone down in all groups, *even the poorest*' (emphasis added) they would not conclude intriguingly that the hungry 'do not seem to want to eat more even when they can' and then attempt to rationalise that astounding proposition, but instead raise frantic

alarms about the least nourished sections of society depleting further their already minimal intake.

Most of all, it should help rid B&D of the does-it-exist? does-it-apply? NBPT albatross. Malnutrition clearly is a roadblock to development for individuals. When it broadens out to communities, and becomes widespread and enduring, it comprises one type of development trap. But malnutrition is as much and more a symptom of poverty as it is a cause. A lack of nutrition keeps people from contributing to the economy but only because the economy has kept them from nutrition in the first place. When jobs are scarce, even healthy individuals may be put out of work, as Mr. Sohlin found out to his detriment. Even if (in his case merited, non-wasteful) food aid gave him back his strength, there is no guarantee that he would have found employment if the economic conditions remained unchanged.

NBPT starts with malnourishment, links it to poverty and then loops back to malnourishment, but it is poverty that is at the heart of the development cycle and that is where we have to begin and to focus. The essential question is not how malnourishment and poverty affect each other but what are the larger and more powerful forces that affect both. We have considered some of them in this piece. Ironically, it seems sometimes that that also is what B&D were trying to convey in their own way. If so, it is a pity that they do not make the point clear. If not, it is an idea worth pondering.

#### Notes

- 1 World Food Programme (2009). The total includes bi- and multi-lateral donors and all types of aid: project, program and emergency.
- 2 The government did announce in November 2010 a temporary introduction of subsidies for poorer households to help them tide over price rises.
- 3 Jha and Ramaswami (2010). A new food security law under discussion will raise the requirement to sixty million tonnes a year. (*The Wall Street Journal*, 20 July 2011.)
- 4 Kotler and Lee (2012).
- 5 Ibid.
- 6 This is at the lower end of the one-third to fifty per cent figure that B&D use but it suits our conservative purposes since minimising these losses helps to overestimate FAD.
- 7 140 per cent to be exact.
- 8 Or 'roughly one-third of food produced for human consumption.' Swedish Institute for Food and Biology (2011): Food losses occur during production, harvest, post-harvest and processing. Food waste is defined as 'both retailers and customers throwing perfectly edible foodstuffs into the trash.'
- 9 The report states these figures as ranges, e.g., the average loss per year in Europe and North America is stated to be between 280–300 kilos. The midpoint was chosen in all cases (290 kilos here)
- 10 These numbers get much larger when waste by retailers is added to consumer waste. Then the total waste for the industrialised world is 290 million tonnes (thirty six times FAD) and for the developing countries 151 million tonnes (nineteen times FAD). ETC Group (2011), p. 37.

- 11 Agribusiness Action Initiatives (2009) p. 4.
- 12 ETC Group (2011) p. 37.
- 13 Three companies, Monsanto, DuPont, and Syngenta control 53 per cent of the market and Monsanto controls almost all of the genetically engineered seed. ETC Group (2008) p. 22.
- 14 ETC Group (2008) pp. 12 and 15.
- 15 Wise and Murphy (2012) p. 43.
- 16 OpenSecrets.org (2012). Some of the larger individual contributors were Monsanto at \$6.4 million, the Altria Group (tobacco) \$11.0 million, Coca-Cola \$5.9 million and Archer Midland Daniels \$1.7 million. Then there were industry associations like the Fertilizer Institute at \$1.4 million, the Grocery Manufacturers Association at \$4.0 million and even the Society of American Florists thought it prudent to invest a half million dollars in this activity. The participation of florists is not all that surprising as the flower industry given sales in 2010 was \$35.2 billion. 'About Flowers' quoting the Bureau of Economic Analyses, June 2011. (<http://www.aboutflowers.com/about-the-flower-industry/industry-overview.html>) viewed 20 March 2012.
- 17 Held in conjunction with the World Food Prize award ceremonies.
- 18 Food and Agriculture Organisation (2011) p. 4. U.S. ODA to agriculture dropped from 20 per cent in 1980 to 5 per cent in 2007 and EU assistance fell from 13 per cent in 1987 to 3 per cent in 2007.
- 19 Wise and Murphy (2012) p. 40.
- 20 Agriculture Action Initiative (2009) p. 8. For example, contract farming covers 75 per cent of poultry production and 35 per cent of soya beans in Brazil, 90 per cent of cotton and milk in Vietnam and 50 per cent of tea and 40 per cent of rice in Vietnam. Agriculture Action Initiative (2009) p. 8.
- 21 Not all farmers are affected equivalently by contract farming. Those from regions dominated by small farms tend to fare well while small farmers in mixed regions (small and big farms) tend to loose out. Ibid.
- 22 Agriculture Action Initiative (2009) p. 9. An estimated one third of Goldman Sachs' net income in 2008, or \$1.5 billion came from commodities trades.
- 23 Wise and Murphy (2012) p. 42.
- 24 Agriculture Action Initiative (2009) p. 4.
- 25 For example, Nestle (88 per cent) and Macdonald's (80 per cent). Other agribusinesses also did very well, Cargill (70 per cent) and the industry leader Mosiac Fertilizer (430 per cent). Ibid., p. 5.
- 26 GAO (2009). Prices in the general economy rose 102 per cent during the same period.
- 27 Lappe and Aziz (2011).
- 28 Google shows only the first 500 hits, so it is difficult to establish how 'legitimate' the results are but the numbers still are staggering.
- 29 Searches conducted in the first week of June 2011.
- 30 Following the 1990 World Development Report, the Bank institutionalised country-level poverty investigations in a regular stream of Poverty Assessment Reports, Participatory Poverty Assessments and Poverty Mapping Exercises.
- 31 I commented on some of these in 1982: 'a sudden ferocious interest in the poor . . . that spawned a flurry of research and publications on the subject of poverty. Previously given short shrift, and only passing mention, this topic rapidly became a full-fledged investigative area in its own right . . . in the mad rush to get to know more about the poor and increasingly "the poorest of the poor" . . .'. Olpadwala (1982)

- 32 Many other world agencies also estimate hunger including the U.S. Department of Agriculture. See ETC Group (2008) p. 5.
- 33 Highlighted in a recent exchange between NYU's Easterly and FAO senior economist David Dawe on the NYU Development Research Institute's Aid Watch Blog, viewed 27 February 2012. Available at (<http://aidwatchers.com/2010/09/fao-senior-economist-responds-on-%E2%80%9Cmade-up-world-hunger-numbers%E2%80%9D>)
- 34 There are others: the poor 'do not seem to want to eat much more even when they can,' 'one reason that the poverty trap might not exist is that most people have enough to eat,' or 'perhaps they are really less hungry, despite eating fewer calories,' or 'most people living on less than a dollar a day do not seem to act as if they were starving' and 'they are not hungry enough to seize every opportunity to eat more.'
- 35 'We have to keep in mind however that a 10,000-hectare plot of farmland will produce a greater yield, and thus provide more revenue to the government, if it is managed by an investor who has an efficient organisation and is financially capable of procuring the best technology rather than 10,000 farmers who eke out a living cultivating their small plots of land.' *Jakarta Post*, 4 March 2012.
- 36 The ten largest pesticide firms controlled 89 per cent of the market in 2008. In 2007 the ratio of the proprietary the seed market to the non-proprietary one was 82:18. Within the former, the top five corporations accounted for 57 per cent of proprietary seed sales. ETC (2008) pp. 12–15.
- 37 Actually, only partly. There is a classic bit of equivocation here: 'None of this is to say that the hunger-based poverty trap is flawed. The idea . . . was *almost surely* very important *at some point* in history, and it *may still* be today' (emphasis added). A digression follows on witch killing in Europe in Middle Ages.
- 38 Saxena (undated) Table 4, (the table is imported from Deaton and Dreze) p. 14.
- 39 Saxena's terms (undated) p. 10.
- 40 This section also contains one of the more condescending passages: 'Well, to start, let's assume that the poor know what they are doing. After all, they are the ones who eat and work.' At the end of all their researches in 'rural villages and teeming urban slums, collecting data and speaking with poor people about what they eat and what else they buy, from Morocco to Kenya, Indonesia to India etc.,' and not to mention the decades of publications demonstrating the high decision making acumen of the poor, the authors still can only 'assume' that poor people know what they are doing.
- 41 *The Lancet* of 11 November 2010 notes that India saw a 20 per cent increase in overweight or obese citizens between 1998 and 2005. It is estimated that 70 million people were obese, viewed 16 April 2012. Available at (<http://www.thelancet.com/journals/lancet/article/PIIS0140-6736%2810%2961514-0/abstract>)
- 42 Some researchers 30 or 35 years ago used linear programming to identify least cost diets with the idea of placing upper limits on transfer programs. The idea sensibly was left to perish.
- 43 Saxena (undated) p.8.
- 44 *Ibid.*, p.10, quoting an Expert Group of the Government of India, 1993.
- 45 '... whether it's worth while goin' through so much, to learn so little, as the charity-boy said when he got to the end of the alphabet, is a matter o' taste.' Charles Dickens, *Pickwick Papers*, Colonial Press, Boston and New York, p. 379.
- 46 Since 'we assume that the poor (farmers) know what they are doing.'

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