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Globalization and food security: novel questions in a novel context?

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Abstract: This paper argues that analyses of food security highlight fundamental contradictions at the heart of the globalization project. It examines the concept of food security and evaluates how national strategies to promote it have been undermined by economic liberalization since the 1980s. It finds that unless current policies are drastically reformed, traditional patterns of food insecurity will continue to hinder development in the South. It also identifies new problems of malnutrition, in the form of obesity, that are set to ravage populations in the North and South. The diffusion of obesogenic environments is allied to globalization and presents a new challenge for public health policy. Globalization and health are inherently linked and, by reconceptualizing the concept of food security, this paper draws attention to this link and argues that such connections should inform national policy in an era of globalization. Imbalances in power throughout the food chain help explain food insecurity in the past and present. The paper concludes that, as in the past, purposeful public intervention is required to promote food security.

Key words: food security, globalization, malnutrition, obesogenic environment, public health, the state.

1 Introduction

Globalization has come to symbolize threats to food security and quality (Coleman and Chiasson, 2002: 176).

CAP reform is inevitable . . . the world is only moving in one direction, towards liberalization (Blair, 2002: 8).

It is widely accepted that public health measures, rather than medical advances, explain the great improvements in life expectancy in nineteenth-century Britain and that public
policies designed to secure food entitlements explain most improvements in nutrition in the past and present. This paper asserts that liberalization policies exported across the globe with such vigour since the 1980s have dangerously undermined the ability of national governments to protect their population’s health and nutritional status. Globalization and health are inherently and variously linked and, by reconceptualizing the concept of food security, this paper draws attention to these linkages and argues that such connections should inform national policy in an era of globalization. This paper is not about globalization per se, although it holds that the contradictions inherent in economic liberalization are nowhere better exposed than through analyses of food security (for globalization debates see Mittleman, 1996; Hirst and Thompson, 1996; Amin, 1997; Gray, 1998; Holton, 1998; Kennedy, 1999; Held et al., 1999; Beck, 2000; Lloyd, 2000; Nederveen Pieterse, 2000; Petras and Veltmeyer, 2001; Johnston et al., 2002).

This paper contributes to development debates by responding to the discussion of ‘lost paradigms’ by Schuurman (2000) in two obvious respects. It maps new inequalities and argues for the continued relevance of the nation state. It emphasizes old and new inequalities in nutrition at global and national levels and suggests that national governments remain the most likely and legitimate institutions able to address the inequalities identified. New questions about food security have emerged in recent years and economic liberalization has significantly changed the context of the debate (World Health Organization and the World Trade Organization (WHO and WTO), 2002). However, this paper contends that, as in the past, progressive, interventionist public policy is necessary to secure food security and public health. It further contributes to development debates associated with one of the most influential theoreticians of food security in academia and policy circles in recent years, Amartya Sen (1981, 1989, 2000). While appreciating the enormous contributions by Sen to discourses of development, especially with reference to food entitlements, the paper points to some unresolved problems in his theorizations with particular reference to contemporary global and national food policies. Corbridge (2002) has written an article reviewing Sen’s work. Most pertinent for my thesis is that he notes how Sen ‘reinstated the importance of public policy by denaturalizing the causes of poverty and famine, [and] at once renewed the case for an “activist state”’ (Corbridge, 2002: 208). While granting Sen’s enormous contribution to development debates, Corbridge (2002) and Evans (2002), find limitations in his analyses. Most relevant to this discussion are his classical liberal ‘exaltation of the individual’ (Evans, 2002: 56) and his neglect of global and nationally framed hierarchies of power within which individual choices are formed. He also underestimates the potential of collective action to challenge such hierarchies. I return to these issues in the conclusion.

The paper begins with a brief review of some relevant literature and raises theoretical issues about food security that are salient in the North and South. Then the traditional concept of food security is discussed and progress towards the elimination of world hunger is mapped. New challenges to food security, allied but distinct from traditional concerns, are outlined next and their geographical incidence detailed. The paper then turns to explanations of the patterns described and asserts that globalization, promoted through economic liberalization, has compromised food security across the globe. This may seem an odd assertion at the beginning of the twenty-first century when we are assured that more people are ‘better’ fed than in any time in human history, but I hope the case is supported by the variety of evidence presented below. The paper concludes
by evaluating the potential of emergent political spaces to promote global food security in the future.

II Literature: an emerging consensus

The last few years have witnessed the emergence of a consensus amongst critical analysts that the problems of food security in the North and South are inherently related and that economic liberalization is undermining desirable policy initiatives in both places. Food is big business, the stakes are high and increasingly polarized (Shlaes, 2002; Wallace, 2002). The social, economic and environmental manifestations of agricultural liberalization vary but serious dangers are everywhere apparent. Few understand the process of globalization as linear or inevitable, but rather as a context within which ‘the restructuring of national institutions is viewed as a necessary response to stabilize capitalism under globalization, given the uncertainties of accumulation and legitimation’ (Atkins and Bowler, 2001: 38). The thesis presented here shares that assumption and argues that the diverse manifestations of food policy crises (poor health, social inequities, rural social and economic collapse and environmental deterioration) are ultimately due to the inability or unwillingness of politicians to intervene to protect their populations from the depredations of globalization effected through economic liberalization (Rapley, 2001; Nederveen Pieterse, 2002). Their reluctance may reflect the ideological power of liberalization discourse, rather than any real erosion of state power, but as the quote from Blair (see Introduction) illustrates, it has been effectively digested by policy makers (Stryker, 1998; Yeates, 1999).

Analyses of the changing character of food systems and their changing global context appeared in the 1980s and 1990s. Among the most important publications include Friedmann (1982), Goodman and Redclift (1989), Le Heron (1993), McMichael (1994), Bonanno et al. (1994), and the collection by Goodman and Watts (1997) provides useful theoretical insights and empirical examples of the globalizing food system. Several of the most convincing writers begin with a critique of the imperatives of globalization before detailing the specific implications of its dictates in a specific country or region. Madeley’s (2000, 2002) and Shiva’s (2000) work emphasize the implications of contemporary transformations of food systems for food security in the developing world. Their work is theoretically convincing, accessible and rich in case study materials from across the South. Several excellent analyses, published by international nongovernmental organizations, describe the limitations of existing policies and suggest modifications to improve food security in the developing world. Their work is theoretically convincing, accessible and rich in case study materials from across the South. Detailed research has been published based on local case studies (Bebbington, 2001; Storey and Murray, 2001) and Delforge (2001) writes convincingly about the potential negative consequences of agricultural modernization in Laos. Her concerns summarize many of the dangers and dilemmas facing rural communities and agricultural and food policy makers across the South.

That similar dilemmas plague countries of the North is also obvious. Mittal (2002) and Qualman and Wiebe (2002) describe the political economy of agricultural change in the USA and Canada in the 1980s and 1990s, and conclude that the net effect has been to ‘accelerate the transfer of wealth from local producers to transnational corporations’ (Qualman and Wiebe, 2002: 1). Similar policies have been transforming agriculture in
Britain; there the consequences have occasionally erupted as national catastrophes. Britain may have the dubious distinction of leading the affluent world in the ‘food scares’ and ‘rural crises’ league tables. Lang (Lang et al., 2001; Lang and Rayner, 2002) and Pretty (2002) are amongst the most thoughtful analysts of changes in food systems in the EU with special reference to Britain. The strength of their insights rests in their attention to the role of powerful economic and political players in the transformation of global and national food systems and the necessity of building political alliances to demand urgent changes in direction. Battles about the future of the food business, whether in the North or South, are about who sets the agendas, who pays the social, economic and environmental costs and who enjoys the profits. The following two sections of this paper explore some of the costs of the contemporary global food system.

III Conventional food security: undernutrition, secondary malnutrition and micronutrient deficiencies

Any discussion about food must open with a consideration of definitions and conceptualizations of food security, surely held to be one of the primary objectives of development policy. The means to that end are very controversial and one of the main topics of this paper, but first the concept itself. The definition used at the 1996 World Food Summit is useful:

... food security, at the individual, household, national, regional and global levels is achieved when all people, at all times, have physical and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life (Wood Food Summit, 1996).

This definition has the merit of introducing several complexities associated with the concept. First is the problem of unit of analysis. There are two extremes suggested here; we may be interested in food security at the individual or global level or any scale in between (Wanmali and Islam, 2002). Most accessible data continue to measure kilocalories per capita per day and are mapped at the national level. This material and an evaluation of trends is published annually by the Food and Agricultural Organization (FAO) in their State of food insecurity reports (SOFI). A new index of malnutrition is now available that measures the depth of hunger (FAO, 2000). There are real problems with such aggregate statistics but they remain essential entry points into any discussion of patterns of global malnutrition. Most nutritional data is now at least disaggregated by gender and sometimes by age. This is usually available in tabular form (de Onis et al., 2000; FAO, 2002). The second issue identified in this definition is the problem of temporal changes in food security. Many people still enjoy occasional periods of adequate food availability followed by bouts of food scarcity occasioned by natural and/or human disasters; obviously any meaningful notion of food security requires that food be available ‘at all times’. The third area identified is that food security assumes three core characteristics, namely, that it be sufficient, safe and nutritious.

Conventional interpretations of food security have been largely concerned with per capita kilocalories per day, although composition of the diet, its protein, nutrient and vitamin components, is just as important. Diets sufficient in calories but deficient in any one of these elements result in micronutrient deficiencies (FAO,
A further manifestation of malnutrition is secondary malnutrition. This is associated with the epidemics of childhood and adult diseases in the developing world where people succumb to disease because of poor diets. Alternatively secondary malnutrition occurs where the prevalence of diseases explain people’s inability to exploit their diets adequately.

Worldwide, the latest estimates indicate that 840 million people were undernourished in 1998–2000. This figure includes 11 million in the industrialized countries, 30 million in countries in transition and 799 million in the developing world. The latest figure for the developing countries of 799 million . . . represents a decrease of just 20 million since 1990, the benchmark period used at the World Food summit (FAO, 2002: 8).

Murray and Lopez (1996) calculated that 22% of total years of life lost (YLL) worldwide were attributable to malnutrition, which ranked first followed by 9.4% attributed to poor water supply. Such calculations are problematic but they should help inform priorities in health care decisions. Most of the world’s hungry, between 90 and 95%, suffer from chronic malnutrition which interacts with poor environments to generate high levels of morbidity and mortality. Detailed maps and statistics are available on-line (FAO, 2002). They portray a depressing picture which represents an alarming trend – ‘progress in reducing hunger in the developing world has slowed to a crawl and in most regions the number of undernourished people is actually growing’ (FAO, 2002: 8). The geography of change is pertinent to note too. Most gains made during the 1990s have been the result of progress in just a few countries; China alone accounts for the great bulk of reductions in malnutrition in the 1990s by reducing its numbers by 74 million. Indonesia, Vietnam, Thailand, Nigeria, Ghana and Peru have achieved reductions of more than 3 million. Gains in these seven countries help offset the 96 million more hungry people in the 47 countries that are the rest of the developing world.

Sudden, often unforeseen, shifts in the geographical occurrence of malnutrition reflect the vulnerability of millions who may be hovering at the threshold of food insufficiency. Acute hunger accounts for between 5 and 10% of deaths resulting from malnutrition each year. Although a small proportion by definition, the impacts of these deaths are regionally concentrated and catastrophic for communities. These emergencies are usually precipitated by a conjuncture of human and natural circumstances, often theorized as structural and proximate causes. In June 2002, 32 countries faced exceptional food emergencies, with an estimated 67 million people requiring emergency food aid as a result. Droughts or excessive rains, combined with past or current conflicts and political incompetence or neglect, explain the occurrence of most of these disasters (Blaikie, 2002; Devereux, 1993).

The crisis in southern Africa reminds us how fragile many of the food systems remain, plagued by human and natural uncertainties. The appearance of Zimbabwe as a food crisis hotspot is a case in point. Formerly it enjoyed surplus food production, but in 2001–2002 an estimated 6 million people suffered from food shortages because of harvest failures and social turmoil. Circumstances in Central America in 2001–2002 illustrate how weather and development policies may conspire to create food crises. Droughts struck the region in 2001 and, combined with the collapse in world coffee prices upon which many of the rural producers depend, caused a food security crisis amongst many of its most vulnerable inhabitants. Some countries in southeast Asia, which had been celebrating successes in reducing malnutrition, experienced sudden
reversals in the wake of the economic crisis that rocked the region in 1998. In November 2002, Ethiopia was in the news again as experts estimated that over 16 million were at risk from famine. Fuller coverage and daily updates on these acute emergencies are available at the FAO and World Food Programme (WFP) web sites.

Food security enjoyed by most inhabitants of the developed world during the last 40 years of the twentieth century was unprecedented. It may be premature to presume that such abundance will last indefinitely. Historically, patterns of food security are prone to sudden changes. Food shortages have been the leitmotiv of human history, a fact perhaps too readily forgotten by affluent western populations with no memory of shortages or rationing. One of the most surprising changes in the 1990s was the recurrence of malnutrition in the ‘transitional economies’ of the former Soviet Union. No one predicted this circumstance. The FAO estimates that there are 11 million people in this region who are undernourished and the figure is growing as the ‘transition’ to capitalism and market relations stumbles uncertainly amidst economic restructuring and political turmoil. Nor has undernutrition disappeared from the industrialized economies. Of the 840 million global total, some 11 million live in the industrialized world. Such very generalized international contrasts are an essential first step in appreciating the problem of food insecurity, but of course significant intranational patterns are equally, occasionally more, significant. Unfortunately this information is more difficult to find and is usually only available for a few countries at one particular moment, which makes establishing trends difficult. It is reasonable to assume that contrasts in malnutrition within countries mirror inequalities in economic and political status. There is some evidence that as globalization deepens, social polarization also intensifies (Nederveen Pieterse, 2002). It is important to restate that, with acute or chronic hunger, usually only certain people suffer. The vulnerability of children to the ravages of malnutrition is well established and charted.

Mapping global patterns of child growth rates provides a sensitive and graphic illustration of severe poverty hotspots (de Onis et al., 2000: 8). Stunting is correlated to a number of fundamental constraints on development, especially women’s educational attainment, national per capita food availability and access to safe water (Smith and Haddad, 1999). ‘The assessment of growth not only serves as a means of evaluating the health and nutritional status of children but also provides an excellent measurement of the inequalities in human development faced by populations’ (de Onis et al., 2000: 1222). Child malnutrition, as measured by stunting, has declined from 47% in 1980 to about 33% in 2000 (de Onis et al., 2000: 1222). However, child malnutrition remains a major public health problem in developing countries with persistent implications for the attainment of other development goals. The prognosis for malnourished children is poor even if they escape premature serious illness or death. Over 70% of the world’s stunted children under five years of age live in south-central Asia, namely, Bangladesh, Bhutan, India (rural), Iran, Maldives, Nepal, Pakistan and Sri Lanka. Africa accounts for a further 26% of the world’s stunted children and approximately 4% live in Latin America and the Caribbean. The survey (de Onis et al., 2000) compared data from sample populations over the last 10–25 years and found that most countries experienced improvements in the incidence of stunting in the last few decades; only eastern Africa exhibited increases.

Globally over 2 billion people suffer from the second type of malnutrition, micronutrient deficiencies (FAO, 2002). Numerically this is much more serious and ironically it
is more readily addressed with simple interventions such as vitamin supplements. This is often known as ‘hidden hunger’ because it is not so obvious a condition as calorie deficits. Micronutrients are essential for human growth and development and the three most commonly absent are vitamin A, iodine and iron. Women and children are particularly at risk from this type of malnutrition. Iron deficiency is the most common and it causes anaemia. It is estimated that 20% of maternal deaths in Asia and Africa are due to anaemia. Between 100 million and 140 million children suffer from a lack of vitamin A, which impairs their immune system and makes them prone to infections, especially the major childhood killer diseases. Vitamin A deficiencies may be responsible for as many as 2 million childhood eye problems and between 250 000 and 500 000 children suffer blindness as a consequence (FAO, 2002).

The contemporary geography of traditional food insecurity is lamented at various international conferences, most recently in Johannesburg at the Rio +10 Summit. World Food Summits (WFS) are held periodically. The most recent one was in Rome (2002) where policies were dusted down and officials pledged to work harder to achieve the target of halving the number of undernourished people by 2015. Progress would have to accelerate by a factor of ten times its current pace to reach this goal. The limitations of contemporary policies and their failure to achieve these targets are reviewed in more detail below.

IV Food security: new challenges

Revisiting the definition of food security, this paper now turns to a consideration of another core characteristic identified in the definition of food security, specifically the nutritious nature of food consumed. (Although debates about the safety of food and the sustainability of the current system are pertinent, space does not allow them to be considered here.) This section reviews the challenge posed to world health as more people adopt diets and lifestyles made popular in the west since the 1950s.

Food and food products have become commodities produced and traded in a market that has expanded from an essentially local base to an increasingly global one. Changes in the world food economy have contributed to shifting dietary patterns, for example increased consumption of an energy-dense diet high in fat, particularly saturated fat, and low in carbohydrates. This combines with a decline in energy expenditure that is associated with a sedentary lifestyle, with motorized transport, and labour-saving devices at home and at work largely replacing physically demanding manual tasks, and leisure time often being dominated by physically undemanding pastimes. (WHO, 2002: 1)

Changes identified in this quote are thought to be the major factors that explain the emerging obesity pandemic (WHO, 2002a). This is an ominous manifestation of globalization and its implications have not received adequate attention. Both developed and developing nations are paying a high price for malnutrition (Halweil and Gardner, 2000). Simple distinctions between the incidence, costs and nature of malnutrition in the North and South are no longer satisfactory. The World Health Organization now identifies health problems linked to overnutrition as one of the most serious public health issues facing countries in both the North and South (WHO, 2002a). This is an astounding circumstance. Used uncritically, such ‘problems’ (of overnutrition) could be
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used as evidence of the triumph of contemporary agricultural production and provisioning, but ‘success’ is hollow and hides fundamental structural problems at the heart of the world’s food system. Before exploring these problems and contradictions it is important to evaluate the impact of overnutrition.

A global phenomenon described as the demographic-nutritional-epidemiological transition was identified in 1997 (World Cancer Research Fund and American Institute for Cancer Research). This model predicted a disease transition that paralleled any country’s shift from ‘traditional’ to ‘modern’ health problems. The former is associated with infectious diseases, poverty and undernutrition. The latter is associated with increased longevity, sedentary lifestyles, inappropriate diets and an increased incidence of noncommunicative diseases (see below). There is of course nothing either ‘natural’ or automatic about such transitions. The model may also be premature in two respects. First, concern has been voiced about the resurgence of some of the infectious diseases, considered conquered until recently – malaria and TB are obvious examples (Lee, 2000; Connor, 2002; Eyles, 2002). Harpham and Molyneux are blunt and grim in their prognosis ‘[F]or urban adults and children then diseases of the “old” epidemiological pattern are persisting, emerging and re-emerging’ (2001; 121). The second problem with the model is that ‘the transition’ appears overdue, as large parts of the world continue to experience high levels of infectious disease, while at the same time already suffering the ravages of ‘modern’ health problems.

‘[T]he complex linkages between globalizing forces, the determinants of health and public health are only beginning to be explored’ (Lee, 2000: 255, also see Solomons, 2002; Poku and Whiteside, 2002). Globalization poses new challenges to public health policy makers in a great variety of realms; those caused by changing patterns of consumption are particularly significant. Health problems related to ‘western’ diets and lifestyles fall into the category of noncommunicative diseases (NCDs). Some of the most serious, held to be directly allied to changes in diet, are diabetes, high blood pressure, strokes and coronary heart disease. The exact connections between diet, lifestyle and these health problems are medically contentious but no-one challenges the connection, or that changed diets are a major explanatory factor in the exponential growth of these health problems as the ‘western’ diet goes global. One of the most serious manifestations is the global pandemic of obesity (WHO, 2002a).

Complex factors help explain the emergence and diffusion of obesity. ‘[T]he sudden and significant increase in the proportion of the population which is overweight or obese is not related to genes or changes in medical practices. Although there are powerful genetic factors affecting individual families who have genetic susceptibility, the overwhelming influence for 99% of the population is environmental’ (European Association for the Study of Obesity (EASO), 2002: 8). The problem of obesity is not about individual choice, it is about societal choices. We are constructing environments that make it difficult to eat and exercise moderately and sensibly. Such environments are just as toxic as those more commonly discussed in the literature associated with air, water, land and food contamination (Adams, 2001; Eyles, 2002). Environments that engender obesity are known as obesogenic environments. Some of their core characteristics are illustrated in Figure 1. Basically, they simultaneously restrict mobility and stimulate high energy intakes; the single consequence is an increased incidence of obesity.

Elements of these environments increasingly surround us from cradle to grave and are difficult to escape. New research even suggests that ‘[C]hildren are exposed from
foetal stage onwards to a range of influences which increase their risk of becoming overweight’ (EASO, 2002: 17). The great majority of people in the North inhabit such environments. Their pervasiveness in the USA explains its high levels of obesity but most of the rest of the world is ‘catching-up’ fast in this particular league table of development. In the European Union (EU) the scale of the problem is just beginning to be appreciated. ‘[O]besity is rising at an alarming rate’ in current and potential members of the EU (EASO, 2002: 3). The problem in Europe is not yet as serious as in the USA but its growth is exponential and the incidence of obesity among children already represents ‘an acute health crisis’ (EASO, 2002: 3 and 15). In both the USA and the EU pockets of extreme incidence exist.

A recent analysis of the prevalence and trends of obesity in the developing world concludes that ‘[M]any countries that historically sought and used national and international funds to combat micronutrient deficiencies and undernutrition are now facing the coexistence of under- and overweight people among the lower-income sectors of society’ (Hoffman, 2003: 6). Childhood obesity is an increasing public health problem

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**Figure 1** Obesogenic environments

*Source: EASO (2002).*
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across the developing world and is mapped for some major world regions by Bellizzi (2002). The diets and lifestyles of children are becoming increasingly unhealthy; the evidence is incontrovertible. Such trends in childhood overweight and obesity suggest that the incidence of NCDs in the developing world is destined to increase rapidly in the coming decades.

This paper is particularly concerned to chart the role of food in the emergent global geography of disease. How are diets changing and what factors explain the shifts identified? A major change is that people in the developing world are eating more animal-based products. ‘Global consumption of livestock products has more than doubled in the last 30 years, driven mainly by substantial growth in meat and dairy consumption in developing nations’ (Holmes, 2001: 1, also French, 2000: 53). The pattern in Japan, where meat consumption expanded by 360% during 1960–90, is being replicated in some of the largest developing countries; it is already well underway in China and Brazil (Holmes, 2001).

Livestock production is expanding and changing character in the developing world as intensive, industrial systems replace less intensive, extensive models. Gandhi (1999) describes how meat consumption is often viewed as ‘progressive’ in India and summarizes some of the negative consequences of the expansion of meat production for domestic and export markets. As well as being implicated in the emergence of health problems, intensive animal husbandry is associated with numerous other social and environmental externalities (Pretty, 2002). The environmental significance of the shifts in the Chinese diet is suggested by Walker ‘[T]he biosphere has never before had to cope with some 1.2 billion people all simultaneously starting to clamber up the food chain from a subsistence rice diet to one of take-away wonton and sweet and sour pork’ (Walker, 1996: 11). Dietary shifts and their implications for international environmental and food security have precipitated a fascinating amount of speculation (Brown, 1995; Boland, 2000). Boland’s analysis illustrates the continued legacy of Malthusianism in food security debates as well as its continued appearance in geopolitical discourses.

The relationship between intensive meat production and traditional forms of malnutrition is controversial and complex. Without becoming embroiled in its temporal and spatial complexities it is important to note that intensive meat production requires high inputs of cereals and soya beans that are increasingly sourced in the international market place. As the demand for them for livestock production increases, so may their world prices as staple human foods also rise. Increases in internationally traded basic food crops have obvious implications for the ability of relatively poor populations to secure adequate amounts. In some national contexts anomalies are already severe. With reference to India, Gandhi concludes ‘[I]n a country where millions of people go hungry, 37% of all land is being used to grow fodder for animals that are being raised and killed for export. Government statistics show that the increase in meat production, in particular beef and veal and buffalo, between 1976 and 1994 has been dramatic . . . [T]he value of meat exports grew from Rs615 million in 1980–81 to Rs7 billion in 1996–97’ (Gandhi, 1999: 95). Food production systems across the world are being transformed to serve new markets and the model employed is the one that emerged in the USA and western Europe after the second world war, namely intensive industrial production. The rationale for these changes and their desirability is evaluated in the conclusion.

The HIV/AIDS pandemic has received a great deal of attention, most recently in an interesting paper in this journal (Barnett et al., 2002) and Barnett and Whiteside (2002)
have produced an excellent analysis detailing its rise, global diffusion and catastrophic impacts. In 2001, it was estimated that approximately 36 million individuals were living with HIV/AIDS and that a total of more than 150 million people are being affected by the disease, caring for orphans, relatives, etc. (Barnett and Whiteside, 2002: 9). The authors assert that HIV/AIDS ‘is the first epidemic of which we have been globally conscious because we can and do know about the disease’s origins and structure. It is changing not only individual lives but also the trajectories of whole societies. Yet we choose globally, in a world more closely shared than ever before, to deny what is happening’ (Barnett and Whiteside, 2002: 15).

There is another epidemic which threatens to be equally damaging to communities across the globe. The WHO recently pronounced that ‘[A] diabetes epidemic is underway’ (WHO, 2002: 1). In fact this is more accurately considered a pandemic, as Type II diabetes is becoming a major public health problem across the globe. This is perhaps the most significant medical problem associated with the global adoption of 'western' diets and lifestyles considered above. The global figures displayed in Table 1 tell the story. This is particularly alarming because diabetes, like HIV/AIDS, is a chronic debilitating disease and has high long-term costs for health budgets, families and individuals. For most countries, the largest single item of diabetes expenditure is hospital admissions for the treatment of long-term complications, such as heart attacks, stroke, kidney failure and foot problems’ (WHO, 2002b: 2). Experts now believe that health problems arising from changes in diet and lifestyles will be responsible for the major burden on health systems across the globe as this century progresses. The scale of the problem is becoming obvious. The burden is greater for many countries in the South because they are trying to cope with a ‘double burden’; the exponential growth of NCDs at the same time as trying to eliminate diseases associated with undernutrition (Shetty, 2002).

As with traditional food security, not all people suffer equally from poor quality diets; some classes and groups of people are more likely to consume poor diets and have less exercise than others. Obesity has a higher incidence in poor populations ‘for clear economic and social reasons’ (EASO, 2002; 9 and 16). Although all social classes are exposed to similar elements of the obesogenic environment some are better equipped to escape its negative impacts, or resist its embrace more successfully. The concept of power is relevant here. The comments made about Europeans have more general relevance ‘only the well off or well-motivated can afford to go to gyms and sports facilities or have

<table>
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<tr>
<th>Year</th>
<th>Diabetes global estimates</th>
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<tr>
<td>1985</td>
<td>30 million</td>
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<td>1995</td>
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<td>2025</td>
<td>300 million*</td>
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Note: Latest WHO estimate (WHO, 2002: 1).
sufficient control over their lives to cope with the pervasive weight promotion pressures’ (EASO, 2002: 10). At another site in the obesogenic environment Crewe’s comments about British consumers are increasingly relevant for consumers everywhere:

The emergence of a group of politically, socially and environmentally aware consumers belies the gritty reality that the majority of British consumers have neither the political clout nor the financial means to engage in careful consumption and to mobilize against the dictates of big retail capital. There remain enormous social inequalities in current food/power relationships (Crewe, 2001: 631).

The Acheson Report (1998) described the health divide in the UK and concluded that it reflected the high degree of income inequality, huge variations in life opportunities, education, housing and employment. Atkins and Bowler (2001: 208) reach the same conclusion ‘[I]ncome is by far the most important explanatory variable in the relationship between diet and health’. Some factors that help explain this correlation are evaluated by Lang and Rayner (2002: 19–22). It is reasonable to assume that similar correlations pertain elsewhere. Detailed statistics about NCDs from developing countries are limited and not always comparable, but evidence suggests that health problems associated with western diets and lifestyles are most serious amongst urban populations, and that low-income urban populations ‘suffer the worst of both worlds’ as ‘under nutrition, food insecurity, dietary excess and obesity often co-exist in urban populations’ (Harpham and Molyneux, 2001: 122).

V Discussion

Transformations associated with globalization remain contentious and have generated numerous debates. One of the most urgent concerns their implication for global food security and associated issues of public health reviewed above. Has economic liberalization, the mechanism through which much globalization is realized, enhanced food security? Throughout its hegemony, traditional forms of malnutrition continued to reduce the life chances of millions of people in the developing world. In addition, new forms of malnutrition in the form of obesity are exported across the globe with western consumption habits. It has also facilitated the diffusion of industrial agricultural systems to the detriment of social and environmental conditions in developing countries. Globalization of food and agriculture, intensified by economic liberalization in the 1980s (effected through Structural Adjustment Policies) was boosted by the signing of the Agreement on Agriculture (AoA) as part of on-going WTO negotiations in Marrakesh in 1994. The consequences have been very mixed and simple distinctions between developed and developing interests are far from satisfactory. But it is certainly important to recognize that liberalization policies have been implemented more thoroughly in the developing world than the developed; this is significant. It reflects the importance that countries in the developed world, especially the EU, USA and Japan, grant their agricultural sectors and signals their refusal to concede their food sovereignty. Such countries have found ways and means to subsidize their agricultural sectors and promote corporate interests while insisting, through the IMF and WTO, that less powerful players remove all forms of agricultural support and, in effect, relinquish their food sovereignty (Murphy, 2001; Sreenivasan and Grinspun 2002).
The extent of economic liberalization is debatable. Lloyd (2000) argues that global laissez-faire only really exists in the ‘fevered imaginations of the hyperglobalizers’ and that what actually exists is ‘a set of manipulated marketplaces dominated by powerful corporations posing as the friends of free consumers’ (2000: 271). Certainly it has been an asymmetrical process, since most of the liberalization was required of developing countries while the farm sector in the developed countries continued to enjoy large public subsidies. In the North too, however, some liberalization has occurred and benefited large agribusiness interests and the minority of large farms, at the expense of smaller producers. Fundamentalist free traders argue that food insecurity would be eliminated if thorough liberalization was implemented. This argument is associated with the members of the CAIRNs group (a coalition of 17 agriculture exporting countries) who are surplus producers and exporters. If their case were convincing it would be morally reprehensible to restrict free trade in agricultural goods, but it is not convincing. The argument is flawed on several fronts.

Most serious is that such productionist perspectives are simplistic and empirically unfounded. This perspective holds that simply increasing the amount of food available will reduce levels of malnutrition. This still popular interpretation was first critiqued by Sen (1981). He argued that people are hungry because of their lack of entitlements, their inability to command food, rather than a lack of food availability. Hunger and malnutrition are never simply about food availability and increases in food supplies do not necessarily reduce the incidence of hunger or malnutrition (Devereux, 1993; Watts and Bohle, 1993; Young, 1996a, b, 1997; Adams, 2001). Indeed in many places the expansion of commercial agriculture has exacerbated malnutrition because the rural poor lose access to key entitlements (Kay, 1999; Madeley, 2000, 2002; Shiva 2000). The concentration of farm ownership increases levels of landlessness. Privatization means that access to common property resources is denied and mechanization replaces agricultural labour and increases rural unemployment. Agricultural liberalization often results in cheap imports that decimate domestic producers and their entitlements. This has occurred repeatedly, most recently with respect to the North American Free Trade Agreement (NAFTA) and Mexican corn producers. Millions of peasant farmers in the South have suffered destitution as a result of agricultural liberalization (Madeley, 2000).

Simplistic free market fundamentalists also ignore basic structural asymmetries that overt subsidies do not address. Some of the most obvious of these include: the privileged role of research and development enjoyed by the advanced economies; their ability to modify WTO legislation; and the massive indirect subsidies given to food producers and exporters through the development of agricultural and transport infrastructure, from irrigation through to railways and dockyards. Perhaps the most dangerous assumption by visionaries of the great global free market for agriculture is that petrol will remain readily available and cheap. Industrial agriculture relies on this to produce ‘efficient’ and ‘cheap’ food. Changes in the cost of this fossil fuel would have ramifications for industrial food production systems everywhere. This argument begins to deal with another issue about food security, that is, the unsustainable nature of the contemporary food system, but this is not the main focus of this paper.

The hypothesis presented in this paper is that food security is fundamentally incompatible with shifts towards liberalization and globalization. It reviews traditional and new forms of food security and concludes that the net impact of changes in the 1980s and 1990s, associated with liberalization, have been negative. Developing countries
have not benefited from the liberalization of their agricultural policies. Some of this is because the ‘liberalization’ has been asymmetrical. Some may have benefited from increased trade in agricultural products, but the majority of poor populations across the developing world have not. Quite the contrary, evidence suggests that the poorest rural populations have experienced an erosion in their food entitlements, specifically, peasant farmers have lost access to land, labour and capital as a consequence of land concentration and increased specialization (Madeley, 2000; Storey and Murray, 2001). Development policies that emphasized the production of export crops have resulted in gluts that ensured increased profits for transnationals and lower prices for producers. Coffee is the best example, but most commodity prices have fallen throughout the 1990s and revenues from exports have fallen in tandem. Food security is therefore compromised by the exposure to volatile world prices and reduced domestic food production. Evidence is mounting that unless agricultural policies are fundamentally refocused, the changes wrought by contemporary patterns of globalization are doomed to intensify all of the problems and contradictions identified above.

Ruthless marketing of unhealthy foods to consumers, especially the young, is obvious everywhere as weak or reluctant public intervention in health debates fails to alter the behaviour of the majority of consumers or reduce the power of corporate interests (EASO, 2002: 11). Privileged, educated sectors of society will modify their diets and behaviour and enjoy better health prospects. The majority, however, will be encouraged to spend more money on ‘functional foods’ produced by the corporate sector to capture more profits from the food business (Heasman and Mellentin, 2001). Although I am reluctant to join the apocalyptic camp, it is difficult not to conclude that the global food system as currently managed, is ethically unjustifiable and unsustainable (McCully, 1996; Redcliff, 1996; Bryant and Bailey, 1997; Young, 1999; Brown et al., 2000; Norberg-Hodge et al., 2001). Whether in coffee, cocoa, cattle or corn, recent shifts in patterns of trade are everywhere socially and environmentally catastrophic and ethically suspect. The whole system is environmentally fragile and vulnerable to natural- and human-induced collapse, because of the susceptibility of monocultures to failure and the dependence of the whole system on unreliable and/or unrenewable fossil fuel inputs. New serious challenges to food security, associated with the safety and nutritional quality of the food consumed have emerged and pose an equally difficult challenge for policy makers in the developed and developing world (WHO and WTO, 2002).

There are obvious parallels between globalization and changes in diet and the patterns of smoking and tobacco sales worldwide. ‘[T]obacco promotion and trade has become a major global public health threat (Yach and Bettcher, 1998). While tobacco consumption fell in many high-income countries in the 1980s and 1990s, it rose in developing countries. That is largely due to the inroads made by transnational tobacco companies into the markets of poor and middle income nations in the last decade (Jha and Chaloupka, 2000); this is destined to increase (Mann, 2003). A recent evaluation of increased international trade and its implications for public health found that ‘[T]he increase in competition associated with opening the market to foreign producers may also lead to more intensive promotion and marketing of tobacco products’ (WTO and WHO, 2002: 71). Exactly the same is true for the major food and drink transnationals and their strategies. ‘Governments can no longer ignore the problem as their citizens begin to recognize the health consequences and costs to society arising...
from inappropriate diets and physical activity. These costs are of a magnitude at least as serious as tobacco’ (EASO, 2002: 8). As the message about the health problems associated with junk foods dawns on consumers in the developed world, corporate marketing of such products in the developing world intensifies. China, in particular, is targeted for the expansion of the processed food and drink markets ‘[B]y the end of last year, the Chinese could eat locally at more than 400 McDonald’s restaurants and about 600 KFC restaurants. Worldwide, McDonald’s, KFC, Burger King and Pizza Hut have topped all other restaurant chains in sales between 1997–2001’ (Sternberg, 2002).

How may the problems identified be reduced or eliminated? Excellent recommendations have been made by critics of the current international agreements (Murphy, 2001; Sreenivasan and Grinspun, 2002). An initial imperative is the reform of the WTO. Most vital is that it becomes more transparent and that participation by the developing countries is enhanced. Its objectives should emphasize poverty reduction and sustainability, rather than increased trade per se. The WTO should revise the AoA to enable national governments to prioritise social and environmental objectives in their food and agricultural policies. Ironically, Sen’s work throughout the 1980s and 1990s established the essential role of an ‘activist’ state in securing entitlements, just as international economic ideologies were making it more difficult for developing states to establish progressive development policies in the realms of public health and agriculture, and decreases in public-sector spending was the norm. Explicit state intervention has long been recognized as necessary to increase entitlements of poor populations, through land reform, subsidized inputs and food support payments of various kinds. All these interventions have decreased through the liberalizing decades and must be reintroduced to reduce traditional malnutrition.

Untrammelled corporate marketing is part of the explanation of the increases in obesity and associated health problems across the globe. Public intervention is essential here too. The objectives of public health campaigns will vary to reflect contemporary concerns of a specific time and place. But to be effective at any time, in any place, they must be driven by a public sector that is sufficiently resourced to challenge corporate interests that have very different ambitions; whether in the transport, construction, food or tobacco businesses. Unfortunately, in this as in many other areas of public health, it is often easier for governments to resort to ‘individual choice’ arguments and eschew preventative medicine in favour of curative approaches. Prevailing efforts by governments to address the problems of overweight and obesity have failed, their emphasis on ‘health education’ is ineffective. A wholesale assault on the structures of the obesogenic environment is required. This returns us to the discussion of Sen’s work.

Evans (2002) and Corbridge (2002) noted a partiality in Sen’s analyses, in his tendency to neglect the potentiality of collective action to effect political change. Only concerted collective action can challenge the massive vested interests in the global food and agricultural sectors. ‘Large business interests are involved in both promoting sedentary behaviour and the passive over consumption of food’ (EASO, 2002: 10). Innovative political action is required to challenge the direction and damaging outcomes of current policies. The changes necessary to create a more equitable and rational food system, that provides more people with a sufficient, safe and nutritious diet, will not be served up by magnanimous agricultural corporations; it is simply not in the nature of corporate sector necessarily to behave in the public interest. They find it better to present the changes in patterns of production and consumption as ‘efficient’
and as a ‘natural’ consequence of individual choice, and then market an expensive technological ‘solution’ to alleviate the resultant environmental and/or health problems. Diabetes is set to become very big business. Diets already are of course, a conservative estimate for the EU is £15 billion per year (EASO, 2002: 25) while the ‘functional food’ sector already accounts for 2.4% of the global food and drink market (EASO, 2002: 12).

Neither will governments necessarily respond to the problems inherent in present food policies (from farm to plate) unless they see political advantage or imperatives in doing so. Shifting policies will require ‘[D]ense, diverse, organised collective action’ (Evans, 2002: 57) in multiple political spaces. The complex nature of food security suggests a theme around which multiple spaces may coalesce into an effective political force. Place-based social movements have already been effective in resisting negative implications of globalization (Escobar, 2001) Ethical issues that surround current food production, distribution and consumption habits are inspiring more campaigns and embarrassing corporate players (see Figures 2 and 3). The connections between

![Figure 2](http://www.adbusters.org/creativeresistance/spoofads/food/babyfry/)

**Figure 2** Campaigns against the corporate food sector ‘Babyfry’
agricultural policies, food and health and their inherent contradictions and absurdities are receiving more publicity (Friends of the Earth International, 2003; Oxfam, 2003). Awareness and educational programmes serve a purpose here but it is naive to think that these alone will produce results. Corporate behaviour and state policies must change but this will not happen unless there is concerted political action. But that may emerge because public health, perhaps more than any other issue, is at the core of political legitimacy and that remains an imperative for most states (Higgott and Phillips, 2000; Glassman, 2001; Purcell, 2002). Everyone is not actually moving in one direction (Blair’s quote in Introduction). Alternative narrative frameworks are available and could be used to shape state power and therefore public policy (Lloyd, 2000: 268). Despite the rhetoric of globalization, states retain considerable autonomy and under some circumstances find it useful to change direction (Weiss, 1998; Yeates, 1999; Othman and Kessler, 2000). French agricultural policy is instructive. It has managed to reconstruct relations with a number of societal actors and has adjusted to aspects of globalization on its own terms (Coleman and Chiasson, 2002: 168). Finland and Norway

Figure 3 Campaigns against the corporate food sector ‘Bigmac’

provide examples of relatively successful government interventions that have reduced the prevalence of obesogenic environments.

This paper posed a question about the nature of globalization and food security and wondered if novel questions have emerged in a novel context? Some may judge the discussion of problems of want (insufficient food) and overconsumption (too much) in the same analysis as suspect, so a word of justification. Food is about politics and power. At every site of its transformation from seed to supermarket, power is inherent if usually obfuscated. Globalization has shifted the balance of power relations in the global food factory, and some have lost and some have gained. This paper exposes some of these shifts and tries to identify where power might be reasserted to reshape the contours of food provisioning. It finds that while globalization has generated new problems, as in the past, a central role for the state remains, that is, to ensure sufficient, safe and nutritious food ‘at all times’ for its inhabitants. It would be foolish for any government to ignore this role, although in the west the abundance of apparently ‘cheap’ food since the 1960s might encourage them to do so. It is much easier for some states to succeed than others, but it remains an imperative for all. This paper argues that economic liberalization has not proved the correct strategy. This is not to argue for national self sufficiency, but it is to recognize that every government is ultimately responsible for the provision of the public’s health, and that is still inherently tied to the provision of nutritious foods and healthy environments. Food has proved a force for revolutionary change in the past. Perhaps its transformative capacity is about to reappear again in novel forms.

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References


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Le Heron, R. 1993: Globalized agriculture. Oxford: Pergamon.


—— 2002: Global inequality: bringing the politics back in. Third World Quarterly 23 (6), 1023–46.


Slaes, A. 2002: Lawyers rush to get fat on McDonald’s. Financial Times Tuesday, 26 November, 21.


