Occasional Papers No. 14

Food as Aid: Trends, Needs and Challenges in the 21st Century

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INTRODUCTION[2]

Global poverty was reduced by 20 percent during the 1990s (Chen and Ravallion 2000). While the precise magnitude of such gains may be debated, the downward trend in recent decades has fueled some optimism that the World Food Summit goal of halving the number of undernourished people by 2015, and the United Nations Millennium Goal of halving poverty, could actually be met at an aggregate global level. For example, according to the World Bank's (2002a) World Development Indicators "brisk economic growth in China and India will enable the world to reach the overall goal of halving global poverty by 2015". While this is good news, progress has been uneven both across regions and within countries, and gains where poverty is concerned have not always been matched by progress in the battle against hunger. For example, although the number of chronically undernourished people in developing countries fell from 816 million to 777 million during the 1990s, this net decline hides two important facts: first, most of the progress (66 percent of the gain) was made by a single country—China; second, over the same period, a dozen or more countries registered *increases* in undernourishment totalling more than 77 million, including India, which enjoys positive economic growth and a significant "surplus" production of food grains (FAO 2001).

It is in the context of continuing food insecurity *despite* economic and agricultural growth that food aid often plays a critical role. Food aid is a high-impact, highly visible resource that saves countless lives during emergencies but that also is called upon to enhance the ability of the poorest people to build sustainable livelihoods in inherently challenging environments and protect poor countries against the volatility of world market prices. Since 1996, the United Nations World Food Programme (WFP) has reached more than 400 million people under

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2 The author would like to thank Dianne Spearman, Wolfgang Herbinger, Georges Simon and Robin Jackson (WFP); Robert Paarlberg (Wellesley College); Tom Marchione (USAID); Chris Barrett (Cornell University); Bernd Dreesman (formerly of EURONAID); and Bea Rogers and John Hammock (Tufts University) for the insights that contributed to this paper. Thanks also go to Suneetha Kadyala for assistance in preparing the paper.

food stress of one kind or another—83 million in 2000 alone (WFP 2002). In some cases, people have been assisted in moving out of poverty; in other cases food transfers have helped individuals simply to survive another day. Either way, targeted food assistance has a positive impact on reducing the number of people who are hungry.

But what might be the role of food aid as we near 2015? From a global peak of 17 million tons in 1993, global flows declined to 11 million tons by 2001, equivalent to just four percent of the world's trade in cereal products and 0.5 percent of world cereal production (FAO 2002a; OECD 2002). Even in the context of declining aid budgets, food aid accounted for barely six percent of all Overseas Development Assistance (ODA) in 2000—down from 22 percent in 1965 (Stevens 1979; OECD 2002). While food aid is not the only answer to global undernourishment, it does have an important role to play (WFP 1996; DFID 2002). This paper reviews trends and issues in food aid from the 1980s through to the early 2000s, highlighting key changes during that period and potential influences on the coming years. The first section considers major influences on food aid supply and trends in food aid usage since the 1980s. The second section addresses a number of emerging issues that may have an increasing significance for the food aid debate in the next few years. A concluding section draws broad lessons from the overview in the context of the concern that even if global trends are positive, the pace of change is too slow in most countries to meet the hugely important World Food Summit and Millennium Goals.

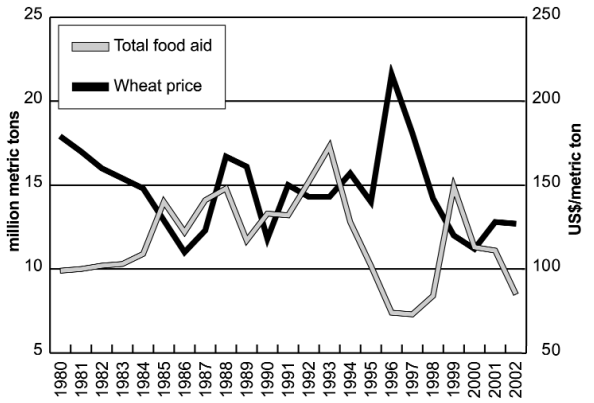
PEAKS AND TROUGHS

Figure 1 indicates that global food aid supplies (the blue line) climbed steadily from less than 10 million tons in the first years of the 1980s to more than 17 million tons in 1993. This was followed by a precipitous fall to less than half that peak by 1996, the year of the World Food Summit in Rome. Two years later, global food aid flows again reached almost 14 million tons, only to collapse once more in the early 2000s, to 11 million tons—the level attained 20 years before (FAO 2000). Why these high peaks straddling equally deep troughs? The answer lies in the interaction among three factors: (i) world market prices for food grains, (ii) the global pattern of humanitarian emergencies, and (iii) donor decisions relating to assessments of need.

Market Prices and Domestic Surpluses

Where grain markets are concerned, a strong link has long been observed between food aid shipments and world cereal prices (Eggleston 1987; Shapouri and Missiaen 1990). Clay et al. (1998), for example, demonstrated a significant statistical correlation between the two from the early 1970s to the late 1990s. World prices for grains climbed steeply during the period from 1992 to 1998, when food aid flows declined, while the increased flow of food aid in 1999 paralleled a fall in international grain prices (Figure 1).

Figure 1. Global Food Aid Flows and World Wheat Prices, 1980-2001

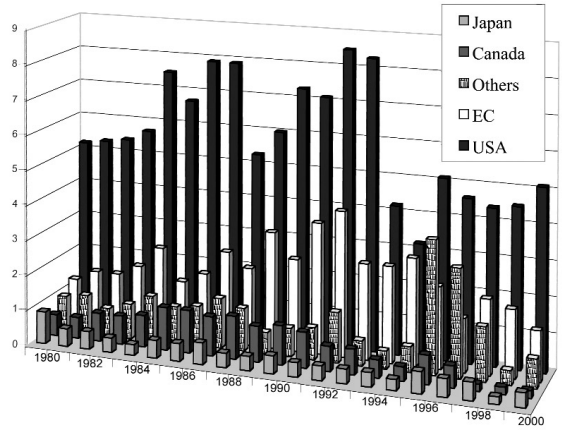


Source: WFP food aid data, INTERFAIS; world prices for wheat represent export prices for U.S. No.2 Hard Red Winter from the International Grains Council and the United States Department of Agriculture.

Of course, there is considerable uncertainty surrounding the potential price effects of market liberalization on the one hand and the direction of crude oil prices (which affect food aid through transportation costs) on the other. Although a new round of talks on agricultural trade under the World Trade Organisation (WTO) was agreed to in 2001, the continued dismantling of subsidy and tariff regimes is far from certain. There are two major reasons for this. First, many low-income, food-deficit countries (LIFDCs) continue to feel threatened by potential price volatility. The Marrakesh "Decision on Measures Concerning the Possible Negative Effects of the Reform Programme on Least-Developed and Net-Food-Importing Developing Countries" was agreed in the context of the Agriculture Agreement in the early 1990s to include provision for additional food aid to countries badly affected by food price hikes. However, that measure was never fully or adequately implemented due to a lack of clarity in defining trigger points for action or responsibility for action (WTO 2001). Recent deliberations on strengthening protection for poor countries against negative price effects have focused on seeking to persuade donors to increase minimum food aid commitments and to maintain high levels of food aid supply *especially* during periods of high world food prices (WTO 2001). At a time of downward pressure on food aid budgets, both of these goals seem optimistic, so the perceived price volatility threat to net food importing countries is likely to persist.

The second source of doubt about the direction of future trade liberalization is that domestic agricultural policy among the principal food aid donors is in flux. Figure 2 indicates that while Japan, Canada and several other countries (principally Australia, China and South Korea) remain important food aid suppliers, flows since 1980 have been driven largely by the United States and, to a lesser extent, Europe (the European Commission and member states combined). Indeed, these two major regions have counterbalanced each other, in such a way that when United States' supplies fell after 1994 they were partly offset by increased contributions from Europe. However, since global flows rely so heavily on productivity in these two main regions, future food surpluses will be heavily influenced by the United States' Farm Bill and European Union's Common Agricultural Policy (CAP).

Figure 2. Global Food Aid Flows by Major Donor, 1980-2000



Despite modifications to the CAP in 1992 and 1998, existing European Union policy favours price stability, costly farm support systems and fixed tariffs that are said to distort the relationship between internal and world market prices (World Bank 2000; Guyomard et al. 2000). However, the direction of change is uncertain. On the one hand, membership expansion into Eastern Europe casts doubt on the European Union's ability to fund farm support regimes at current levels, suggesting that output might decline if subsidies are reduced. On the other hand, bringing largely agrarian economies such as Poland, Bulgaria and Romania into the supply pool for European grain would potentially increase output while further lowering producer prices.

Similar debates on price, income support and export strategy surround the United States' Farm Bill. The previous version (the FAIR Act of 1996) introduced increased flexibility on the production side and greater freedom on the marketing side, by de-coupling compensatory income support for producers from commodity prices. United States' farmers are today more able to respond to world market forces (at least where major cereals and oilseeds are concerned), while at the same time the underlying structure of export subsidization remains largely untouched (Orden and Paarlberg 2000; Guyomard et al. 2000).[3] As a result, it is forecast that by 2011, United States' exports of grains for human and animal consumption will rise by almost 50 percent over the level of 2000 (FAPRI 2002).

That said, future supplies of food aid from the United States will be strongly determined by producer reaction to price conditions under the 2002 Farm Bill, including reactions to a policy reversal that reinstates price guarantees along with continued support to export enhancement and concessional sales overseas. It is expected that the new bill will boost subsidies to domestic crop and dairy producers by over US$30 billion through 2007, an increase of more than 75 percent over current levels (IUST 2002; USHR 2002). This may encourage surplus production (for which food aid has been a long-standing pressure release). However, that assumption in itself raises a number of questions, including: (a) how much surplus can be disposed of economically outside of food aid channels without contravening WTO rules? (b) how much would be channelled bilaterally as untargeted food aid (which has limited value in reducing chronic undernourishment)? (c) would any increase in United States' food aid supplies be in addition to or a substitute for potential reductions from other donors?

Given recent trends and the reversal of United States' policy with regard to direct subsidies of agriculture, an increase in United States' food aid is likely in the years of good harvest, with much of the supply being allocated as programme aid to countries of political and military importance, as well as to potential commercial consumers of United States' grain. Should this be the case, it would likely provoke an increase in subsidies within the European Union (or at least a relaxation of prior commitments to the removal of subsidies), and this could have knock-on effects elsewhere. For example, after several years of progressive

3 The largest of these is the Export Enhancement Program, which mainly supports the export of wheat grain and flour—an important commodity where food aid is concerned.

relaxation of import constraints, in 1999, Japan enacted a Basic Law on Food Agriculture and Rural Policy, which reinforces long-established claims about the national importance of (economically inefficient) domestic production of rice and other staple crops. The law is based on the principle that "national food security requires that domestic agriculture produce a minimum level of output", and that the value of rice paddies goes beyond production into the equally important realms of flood control, maintenance of biodiversity and the sustaining of rural lifestyles (Dyck 2001).

Both China and India are learning to cope with what is a novel problem from their perspective: disposing of large grain surpluses (Gale et al. 2001). From 1980 to 2000, Chinese grain output almost doubled as a result of more market-oriented policies, coupled with the adoption of Green Revolution technology. The so-called "Governor's Grain Bag" policy of the mid-1990s was especially successful in increasing production of staple grains through producer price protection and provincial quota setting. In India, productivity gains were encouraged also through price supports and through large investments in the infrastructure needed for the adoption of higher-yielding crop varieties. By the early 2000s, China and India together were exploring ways to deal with surplus grain estimated in the hundreds of millions of tons (Gale et al. 2001; WFP 2001). In theory, both countries could become important food aid donors in coming years. India already periodically assists Nepal and Bangladesh, while China has been a fairly large food aid donor since 1996. Yet, their grain quality and inter-annual production variability (hence reliability in terms of food aid supplies) remain uncertain.

An additional "food price" factor to be considered is the role of international oil prices (and related freight insurance costs). It should be noted that the two peak years for total food aid flows in the 1990s (1993 and 1998) were years exhibiting downward pressure on crude oil index prices (USDA 2001a). By contrast, crude prices rose during 2001/2002 and are projected to rise further by 2011 (USDA 2001b). The cost of transporting food aid thus becomes an issue in itself, raising concerns about the need to allocate sufficient non-food resources to food aid budgets in order to ensure that delivery can be guaranteed to the most remote parts of the world.[4]

The logistical difficulties (and associated high costs) of reaching isolated communities in Central America after Hurricane Mitch, parts of remote Indonesia during the drought/famine of l997, and Afghanistan during the winter of 2001/2002 focused attention on the inherent tensions involved in financing the humanitarian imperative. A commitment to ensuring that food aid is delivered to whoever needs it, wherever they may be, carries important cost implications for other non-emergency, food-assisted operations. While food aid is widely seen as a relief resource *sine qua non*, food aid agencies are increasingly challenged to demonstrate cost-efficiency in environments that incur the highest costs. Long-term investments aimed at building infrastructure or reducing soil erosion

4 Large emergencies in market-constrained environments usually generate considerable inflationary pressure on prized local goods such as all-terrain vehicles, interpreters, hotel space and internet connections. Food aid, on the other hand, can have a stabilizing effect on local prices. As noted by *the Economist* (2001) in reference to relief in Afghanistan, "aid organizations find that transaction costs are lower if they use food rather than money to make things happen."

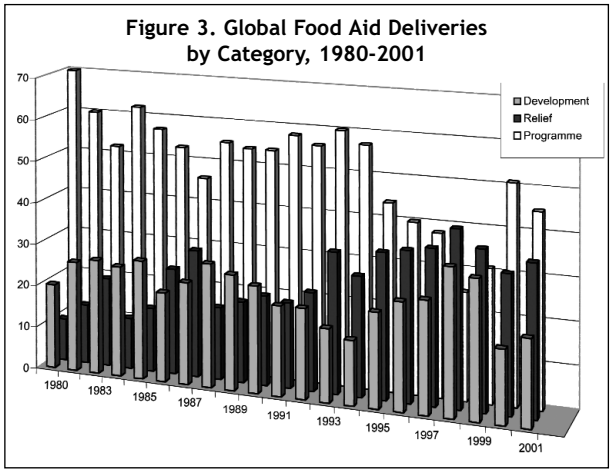
in marginal lands could in many cases mitigate the impact of future droughts or floods.

The presence of development activity can allow for more timely and targeted relief interventions due to the pre-existence of a food pipeline, established institutional arrangements and prior assessment of local capacities and vulnerabilities. Yet, it is hard to demonstrate positive cost-benefits and other forms of short-term economic impact in many remote, harsh environments. The result has been a slow but sure erosion of food commitments for development, in turn leading to reduced investment in the locations that are often prone to recurrent crises.

Humanitarian Emergencies

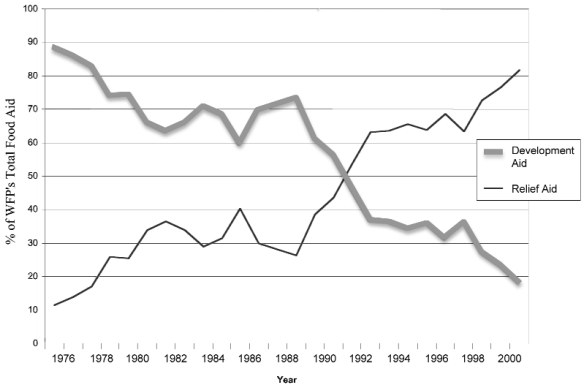
According to FAO (2001), "there is a strong inverse relationship between the occurrences of shocks (whether caused by natural or by human-induced disasters) and progress in reducing the number of undernourished". Figure 3 shows that the share of food aid allocated to emergency relief rose in the mid-1980s (in response to famine in the Horn of Africa), and rose again from 1992 through 1998, as the Cold War was

Figure 3. Global Food Aid Deliveries by Category, 1980-2001



replaced by a series of bloody conflicts within, rather than between, states. Indeed, the share of food aid for emergencies climbed to over 40 percent in 1997/1998—the first time since the 1970s that relief constituted the single largest category of food aid. The relief category has continued to be larger than the project (development) food aid category since 1992. For the World Food Programme in particular, the shift in food aid priorities since the 1980s was particularly dramatic (Figure 4).

Figure 4. Trends in WFP's Food Aid For Development versus Emergency Relief, 1975-2000



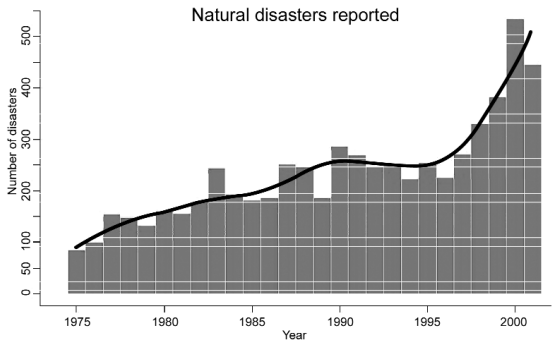
Some of the new "complex emergencies" caught the media spotlight, such as inter-clan violence in Somalia, genocide in the Great Lakes region, the violent dismantling of Yugoslavia, long-standing struggles over diamonds and political power in West Africa, the fight for independence in East Timor, and simmering conflicts that flared up at various times during the decade in Chechnya, Sri Lanka, Angola and Afghanistan. These new internecine crises forced the humanitarian community to rethink many policies and practices (Slim 2001). Cherished principles of neutrality and impartiality became blurred by the reality of the need for military convoys to protect aid resources (and the providers of aid), the need to negotiate (sometimes pay for) access to distressed communities, and by the tension inherent

in seeking to provide succour to all while bearing witness to aggression and atrocity.[5]

Since some of these challenges were new, they took centre stage in the humanitarian debate of the 1990s. An unfortunate by-product was that other (longer-standing) challenges still needing to be resolved received much less attention. While the role of drought or floods in creating food crises was rightly reassessed in the light of entitlement theory, the negative effects of destabilizing shocks on already fragile economies and livelihoods tended to be underplayed (von Braun et al. 1999). However, this changed at the end of the decade, when Hurricane Mitch, the Orissa Supercyclone, and El Niño droughts and floods across the world brought the dangers of natural disasters back to the fore, and concentrated attention on the linkages among ecological, economic and political vulnerabilities. As Sparrow (2001) argues, "catastrophe is no longer a brief dip on the curve of development but a danger to the process itself".

According to the global reinsurance company Munich Re, costs associated with natural disasters rose 14-fold in real terms from the 1950s to the late 1990s (Munich Re 2001). Figure 5 suggests a steady increase in the number of major events reported to the Belgian-based Centre for Research on the Epidemiology of Disasters (CRED) since the early 1980s.[6] While there were several major droughts during the 1980s, including one that devastated the

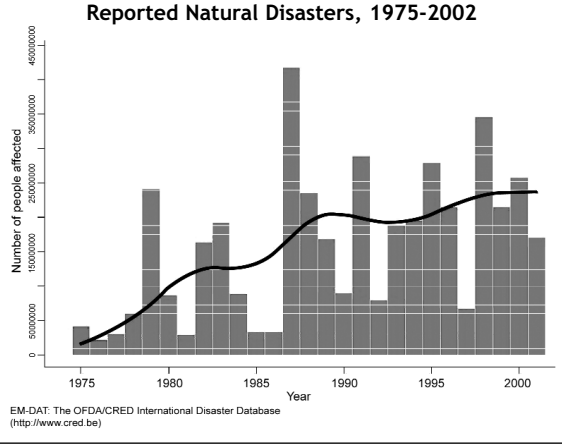
Figure 5. Natural Disasters, 1975-2002.



Horn of Africa in the mid-1980s and another across India in 1987 (affecting more than 300,000 people, according to CRED), the number of disasters climbed steeply in the latter half of the 1990s.

At the same time, the number of people negatively affected by disasters also grew—from around 50 million in 1980 to 250 million in 2000 (Figure 6). Each year of the 1990s an average of 211 million people were killed or affected by natural catastrophes—a figure that is seven times higher than for those killed or affected by conflict-related emergencies (IFRC 2001).

Figure 6. Numbers of People Affected by Reported Natural Disasters, 1975-2002



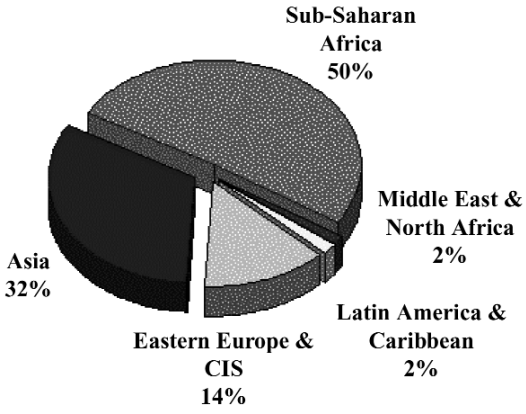
5 Much of the rethinking has been salutary, leading to a greater emphasis on professionalism and coordination as opposed to well-meaning amateurism, codified in a number of important multi-agency initiatives, including the Code of Conduct of the International Red Cross and Red Crescent Societies, the minimum standards approach of the Sphere Project, and numerous reviews of best practice (by CARE and Save the Children-US, among others).

6 These data have to be treated with care. On the one hand, there is a recent-event bias given that the measuring and recording of disaster events have improved over time, so that current assessments can be compared only partially with those of several decades ago. On the other hand, the assessment of number of people affected, as opposed to killed by a disaster is not an exact science.

The large numbers are driven partly by continuing population growth but also partly by the increasing concentration of people in mega-cities often located near coasts or on low-lying floodplains, and by the increasing concentration of wealth in such locations.[7] Thus, while droughts and epidemics tended to be the main scourge of developing countries in past decades, windstorms (such as hurricanes and super cyclones) hitting coastal regions, inland floods, and earthquakes and landslides are increasingly coming to the fore as destroyers not only of human life but also of the infrastructure on which economic growth depends.

What is more, just as conflicts produce huge numbers of internally displaced people and refugees, so too do natural hazards such as drought, river erosion or volcanic activity. By the end of the 1990s there were an estimated 25 million "environmental refugees" around the world, a greater number than for refugees displaced by armed conflict (IFRC 2001). Unfortunately, both types of emergencies are often proximate. For example, the volcanic eruption that destroyed parts of Goma on the Rwanda/Democratic Republic of Congo (DR Congo) border in early 2002 affected many of the same people who had previously been displaced either by armed conflict within Rwanda in the mid-1990s or by ongoing fighting in DR Congo. Sub-Saharan Africa was heavily represented in all major crises of the 1980s and 1990s, including conflict in Angola throughout both decades, famine in the Horn of Africa in the mid-1980s, the Southern Africa drought of 1991/1992, and armed conflicts within Somalia, DR Congo, Mozambique, Sudan, Rwanda/Burundi, and Sierra Leone, to name only a few. During the 1980s, Africa's share of global food aid flows fluctuated around the 30-percent level, rising to a high of 40 percent during the 1984/1985 famine in Ethiopia and Sudan. It reached that same level in 1993, when Somalia, the Great Lakes tragedy and other emergencies on the continent occurred. By 2000, sub-Saharan Africa accounted for 35 percent of total food aid flows but 50 percent of the share going to emergency relief (Figure 7).

Figure 7. Distribution of Relief Food Aid by Major Geographic Region, 2000.



Of course other parts of the world were not shielded from natural disasters or conflicts either during this period. Hurricanes and floods occurred with some regularity in South and Southeast Asia during the 1980s (as did droughts in Africa), but natural catastrophes were particularly conspicuous in the late 1990s, with the floods in South-East Asia and devastating wind storms in Central America and India. Similarly, the Democratic People's Republic of Korea became one of the largest single recipients of relief food during the mid-1990s, and armed conflicts in Cambodia,

7 Whether or not natural events themselves have become more severe or more frequent remains a subject of some debate. The link between disasters and El Niño cycles (or other longer-term cycles) is the subject of much scrutiny, as is the link between disasters and global climate change.

Afghanistan, Sri Lanka, Nepal and East Timor ensured that relief operations in Asia kept a high profile.

Arguably the most unexpected of crises of the 1990s were those played out in Europe and the former Soviet Union. Just as celebrations were being organized to mark the 50th anniversary of the Marshall Plan (which represented one of the largest food aid transfers in history), the Plan's original donor *and* its former recipients were again faced with pleas for food assistance from within continental Europe. The tragedies of Bosnia and Herzegovina, Kosovo, Chechnya (twice), Armenia and Azerbaijan (persistently), and several republics of the former Soviet Union (especially Georgia, the Kyrgyz Republic and Tajikistan), demonstrated that large-scale flows of food aid could not be ruled out beyond the tropics. Relief shipments to Europe and Newly Independent States (NIS) delivered by WFP rose from zero prior to 1990 to over 300,000 tons by 1994. By 1995, the Europe and NIS region accounted for 17 percent of global *relief* food aid deliveries—a share that was still in double digits in the early 2000s (WFP 2001).

As for the coming decades, the state of current debates over the nature and causes of climate change makes planning for weather-related disasters rather difficult. A recent report by Working Group II of the Intergovernmental Panel on Climate Change (IPCC 2001) raises some important concerns about longer-term environmental impacts. Table 1 summarizes some of the findings of this group relating to natural disaster vulnerability in developing countries. The international panel suggests (with confidence in the 66–90 percent range) that extreme events (such as droughts, floods and cyclones) will increase in number and intensity in most parts of the developing world, leading to decreased agricultural productivity, higher infrastructural and ecological damage, and greater risk to human life, especially in the poorest nations, where the adaptive capacity of human and economic systems is low. While little can be done to *prevent* such potentially devastating changes, steps should be taken to prevent the erosion of past gains in economic development and food security. These include: paying increased attention to coastal and riverine protection, planning for extreme events (preparedness and early warning), and improving medium-term food policy planning.

Table 1. Examples of Impacts Resulting from Projected Changes in Extreme Climate Events

Projected Changes in 21st Century	Examples of Impacts
Increase in tropical cyclone peak intensities, mean and peak precipitation (likely)[1]	• Increased risk of disease epidemics • Increased coastal erosion • Damage to coastal ecosystems
Increased summer drying over most mid-latitude continental interiors (likely)	• Falling crop yields • Reduced water quality and quantity • Increased forest fire risks
Intensified droughts and floods associated with El Niño events (likely)	• Reduced farm and rangeland productivity in drought and floodprone areas
Increased Asian summer monsoon precipitation variability (likely)	• Higher flood and drought damage
Increased intensity of mid-latitude storms (chance unknown—little agreement among models used).	• Increased direct risks to human life • Increased infrastructure damage • Increased damage to ecosystems

[1] 'Likely' refers to estimates of confidence used by the Working group: *likely* refers to a 66-90% chance. Source: IPCC (2001)

Donor Priorities and Agreed Need

Although investments aimed at reducing vulnerability to shocks are the immediate responsibility of national governments, donors also must be concerned about threats to international commitments. There is a question as to how donors prioritize their commitments in relation to perceived needs. During the 1990s, the United Nations initiated a consolidated appeals process aimed at streamlining approaches taken by United Nations institutions and their partners in appealing for funds to support emergency relief operations. In most years, roughly 60 percent of the total figure requested was met by donors, and the share for food aid within the consolidated appeals process has typically been much higher than that.[8]

However, such a streamlined system has yet to be instituted for longer term resource needs, in support of *development, preparedness or reconstruction*. The process of planning food aid budgets and activities more than one year ahead is fraught with difficulties due to large inter-annual variability in donations and uncertainty about which activities will be funded in which countries. As noted above, high grain prices tend to be linked with decreases in food aid levels. Although the Food Aid Convention (FAC)[9] minimum levels are always met, the floor has decreased significantly over the past decade. The FAC commitments have neither protected the absolute floor level from declining over time, nor prevented large inter-year fluctuations in donations—a fact that reflects the dominant role of dynamic market conditions (Clay et al. 1998; IGC 2001).

It has been argued that variability and uncertainty reflect that donors are only partially guided in their decisions on food aid allocations by appeals to meet the basic food needs of the world's hungry people (Hopkins 1990; Gabbert and Weikard 2000). While it may appear obvious that the poorest food-importing countries need more food aid than middle-income countries, the poorest nations cannot rely on a stable share of annual food aid flows (Figure 8). For example, in 1998, when total deliveries reached 8 million tons, the LIFDC share was 86 percent. The following year, when food aid reached over 13 million tons, the share to LIFDCs was only 60 percent.

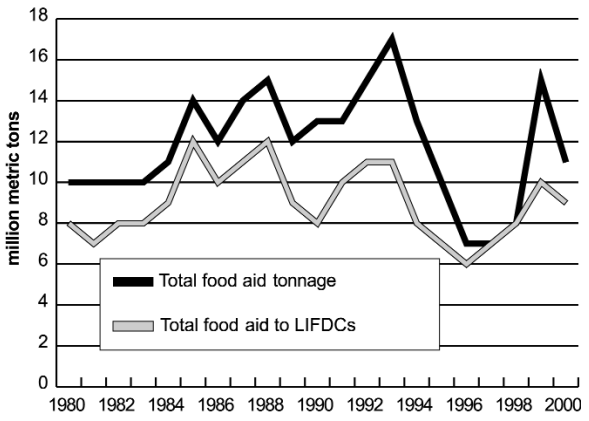
In fact, projections of global food aid needs since the 1980s have been driven largely by parallel projections of global food supplies versus demand. In the second half of the 20th century, there were at least 30 quantitative projections of global food balance sheets, each using widely different data sources, methods and projected time frames. Inevitably, data coverage and modelling complexity both have increased over time, and more recent projections (say, to year 2000) have tended to be more consistent with observed outcomes than the more distant forecasting ventures. However, while projection errors are typically modest

8 For example, from 1994 to 2001 the donor response to WFP's food aid request within the United Nations consolidated appeals process was on average 85 percent, compared with only 58 percent for all other sectors combined (UNOHA 2002).

9 The FAC is part of a series of multilateral cooperation instruments that have covered food aid commitments since 1967. The current minimum level of commitments, agreed in 1999, is 4.9 million tons of wheat equivalent grains (plus €130 million), down from 7.6 million tons of grain in the previous agreement, and considerably lower in real terms (as a share of grain produced by FAC members) than the 4.5-million-tons level set in 1967.

at the global level, 'errors' (projection minus measured outcome) increase substantially at the country level (McCalla and Revoredo 2001). Where errors are large, it has been argued that the data and models used were weak. Where food *aid* projections are concerned, additional problems arise.

Figure 8. Food Aid Deliveries to Low-Income, Food-Deficit Countries (LIFDCs) relative to Total Flows, 1980-2000.



Source: WFP and FAO data

In the late 1980s, a series of food aid needs' forecasts were made by at least five major research institutions (NRC 1989). Most of these forecasts were based on a concept of "the amount of grain needed to fill the gap between what a country can produce plus its financial capacity to import commercially, and a targeted consumption level" (USDA 1995). The grain gap was based on food balance sheets, while the targeted consumption level varied according to current (so-called *status quo*) levels of consumption versus an ideal (desired) level based on an understanding of the nutritional needs of each population.[10] Resulting projections for the year 2000 ranged from the USDA's projected global food aid requirement (for 69 developing countries) of 40 million tons; the World Bank's figure of 23 million tons; IFPRI's projection for 85 low-income countries of 39 million tons; and IIASA's 30 million tons.[11] These are average levels, with lows around 20 million to highs in excess of 70 million tons (Hopkins 1990).

The only domain where large-scale food aid supplies can still be projected with some reliability is that of *untargeted* programme aid. As was shown in Figure 3, government-to-government food import substitution programme aid has generally been on a downward trend. The share of programme aid fell from almost 80 percent in 1977 to a record low of 25 percent in 1997, before partially recovering to 40 percent in 2001 (still half its 1977 level). The overall decrease in programme aid since the 1970s occurred as a result of the increasing "multilateralization" of development assistance as a whole, the strengthened role of multilateral institutions and agencies such as the European Commission and the World Food Programme, shifts in macroeconomic policy that moved towards removing support for universal food subsidies (as in Egypt and Mexico), rapid agricultural growth in former programme aid importers (such as India), and, as noted above, the increasing focus on people (as deserving recipients of aid in the form of food) versus nation states.

Of course at no point during the 1990s did actual food aid flows come close to matching the *projections* of needed flows. Table 2 compares the difference between needs' projections (low estimates offered by IFPRI) and actual food aid receipts by region in 1995

10 Some recent analyses still use the same approach: "food aid need is based on a comparison between dietary energy supply and dietary energy requirements". (Gabbert and Weikard 2000)

11 International Institute of Applied Systems Analysis, in Vienna.

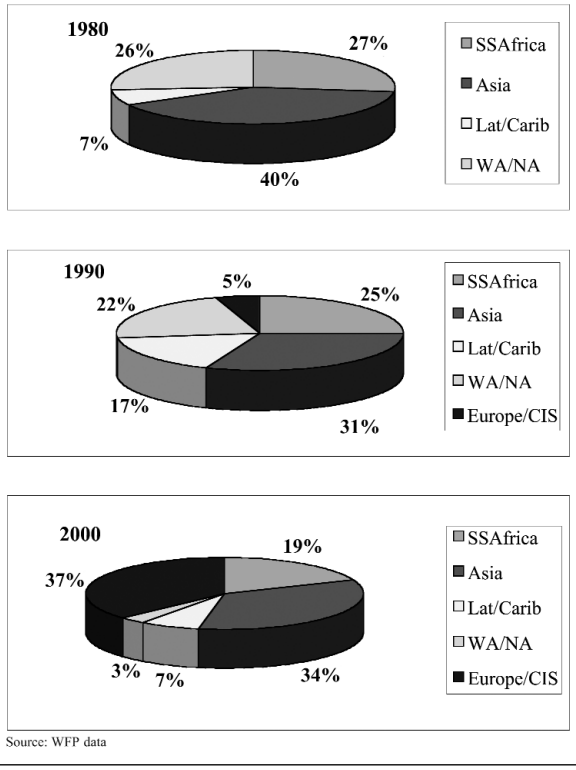
Table 2. Comparing Food Aid Needs Projected in 1988 Versus Outcomes in 2000 ('Low Estimates' provided by the International Food Policy Research Institute).

Region	1995		2000	
	Projection	Actual	Projection	Actual
	(Million tons)			
Asia	3.1	2.4	2.6	3.1
SSAfrica	18.2	3.3	26.0	3.8
WAsia/N.Africa	16.2	0.6	19.1	1.1
L.America/Carb.	4.9	0.9	6.3	0.9
Europe/CIS	0	3.0	0	2.1
Total	42.3	10.2	53.8	11.0

Source: NRC 1989; WFP 2002.

and 2000. There is large divergence in outcomes at both the aggregate and regional levels. At the global level, projections of 40–50 million tons were four to five times greater than actual flows for 1995 and 2000. At the regional level, most projections assumed huge need in the West Asia/North Africa region (19 million tons), when that area received only 1 million tons in 2000 (Figure 9). Similarly, little account was taken of humanitarian emergencies. As a result, the Europe and Commonwealth of Independent States region was not included in any of the projections, and needs for Asia were underestimated because continuing exposure to large natural disasters was underestimated.

Figure 9. Geographic Distribution of Global Food Aid, 1980, 1990, 2000



Source: WFP data

Does this mean that the projections made in 1988 were wrong due to weak data or poorly specified models? Arguably not. On the one hand, the models of 1988 were based on a food aid agenda of the 1970s and 1980s; by the mid-1990s that agenda had considerably changed. On the other hand, the modellers of 1988 were assuming that food aid followed food need based on some assessment of energy deficiency at the national level. In reality, donors still do not agree on the most appropriate scope and role of food aid in meeting food insecurity.

In terms of the changed agenda, food aid debates of the 1970s and 1980s were concentrated largely on the disincentive effects of food aid on local production (Isenman and Singer 1993), local market distortions (and monetization of food as an alternative) (Clay and Stokke 1991), and dependency effects for countries relying on donors to fill structural food gaps (Hopkins 1990). Those three concerns were addressed during the 1990s largely through improved policies and programming, which involved several significant breaks with the past, including:

a) increased commitment to using food aid to target people rather than to providing import substitution to governments (Club du Sahel 1990; EC 1996; WFP 1996);
b) closer attention to potential displacement or the disruptive effects of food aid deliveries (or monetization) to local economies; with many food aid agencies becoming key players in local markets,

resulting in cases of disincentive effects resulting from lack of attention to price dynamics becoming rare (Aker 2000; ODI 2000; Barrett 2002);

c) new commitments to a quality process, not just the product, including greater attention to the professionalism of government and NGO partners, to new policies that get food into the hands of women (as a vehicle for empowerment and not just as a supply of nutrients), and to participatory planning and implementation (WFP 1999a; Sphere 1999);

d) endeavours to bring development and emergency interventions into closer geographic and programmatic interaction (i.e. increasing coherence between emergency and development activities in the same location, although still very limited and pursued on an *ad hoc* basis) (IFAD 1995; Coste 1998); and

e) a narrowing of the range of development activities supported by food aid, such as the exclusion from most portfolios of dairy production, mining and support of dam-related population resettlement (Ruttan 1993; WFP 1999).

While some of these ideas were present in the 1980s, the 1990s was a decade in which people came to be seen as the crux of food insecurity rather than food supply itself. This fundamental shift required agencies to start seeking out not only the contexts in which food *could* make a difference to vulnerable people's lives, but also the contexts in which food aid could have a *comparative advantage* in doing so. Yet, the question of what constitutes *need* has yet to be answered satisfactorily. Many indicators of the need *for action* are found in the academic and programmatic literature, including: (a) the share of total population consuming less than 80 percent of a minimum energy requirement; (b) a daily energy supply of less than 1,500 kcal per person per day; (c) a high (>15 percent) prevalence of wasting (low weight-for-age) of children under 5 years; (d) excess mortality greater than 1 in 10,000 per day; and (e) high vulnerability to external shocks combined with limited (or exhausted) means of coping with impending food shortages (AusAID 1997; WFP 2002).

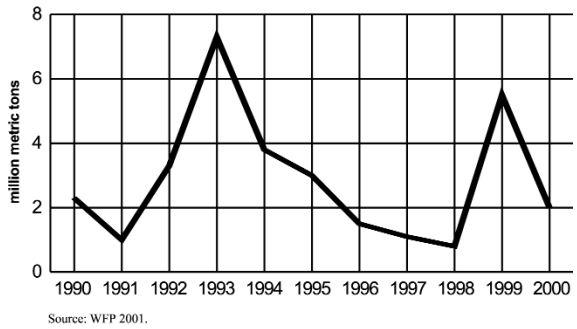
None of these threshold indicators is fully satisfactory as a trigger for action since none defines causal links between human distress, on the one hand, and either a lack of food *per se* or the need for food aid, on the other hand. While terms such as "vulnerability" and "livelihood insecurity" are widely used to frame analysis and action in the context of food crises, they elude simple, let alone common, definition. Vulnerability is linked to, but not the same as, malnutrition, poverty or physiological distress (Webb and Harinarayan 1999). As a result, in assessments of the need for food aid, closer attention should be paid not only to the context-specific nature of risks and the capacity of households to manage them (their resiliency or coping ability), but also (separately) to the potential for public action to bolster that capacity through targeted food aid or *other* interventions. This being the case, conventional projections of food aid needs ten years hence have become as irrelevant as macro-level analyses of the (mis)match between national food gaps and food aid flows. Today, targeted food aid flows are driven more by case-by-case assessments of the urgency of human problems (where food aid is often the first available resource), the likely

availability of food resources from other donors (leading to potential substitution effects), and individual donor perspectives on the value of food aid as a resource for meeting food problems. None of these factors lends itself easily to forward projections.

That said, the 1990s was a period during which the geopolitical use of food aid gained renewed respectability (and hence climbed again around 1999/2000). While efforts to de-couple food aid from foreign policy interests have long been pursued, economic crises in the NIS, Russia and parts of South-East Asia largely nullified, or at least delayed, such goals (Ruttan 1993; WFP 1996; Alfonso and von Steekelenburg 1999). One of the biggest factors in the peaks and troughs of the 1990s was programme aid, mainly flowing from the United States and Europe. Strong commitments to macroeconomic and political stabilization in troubled economies led to large transfers of food first to Russia (1992/1993) in the wake of the fall of the Soviet system, to Indonesia during the Asian financial crisis (1998/1999), and again to Russia and other NIS nations (1998–2000). Between those peaks the share of programme aid fell sharply, as did the United States' contribution to global flows.

In 1993 (the record year for global flows), Eastern Europe, NIS and Russia received almost seven million tons, around 40 percent of all flows for that year—up from a mere five percent share at the start of the decade (Figure 10). Just four years later, the same region was receiving only 0.83 million tons, of which only 0.3 million tons represented programme transfers. However, renewed uncertainty in Russia and South-East Asia led to another

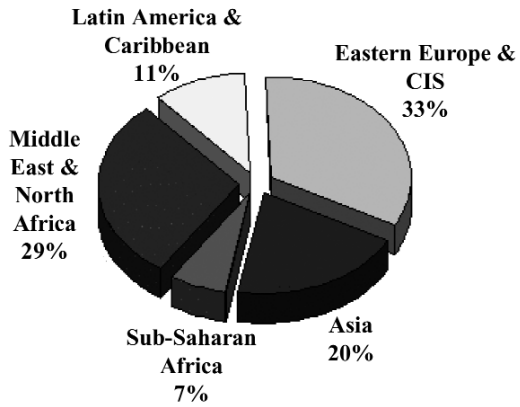
Figure 10. Food Aid Flows to Europe and the Commonwealth of Independent States, 1990-2000.



Source: WFP 2001.

sharp increase in programme flows. While shipments to Indonesia rose from 9,000 tons in 1997/1998 to over 700,000 tons in 1998/1999, and donations to Bangladesh increased by more than 50 percent year on year, the bulk of the increase was directed towards the Russian Federation (FAO 1999a). By 2000, programme assistance still represented around 26 percent of the total, a slightly higher share than that enjoyed by project food aid, most of which continued to go to Europe/CIS and West Asia/North Africa – much of the latter destined for Egypt, Jordan and Yemen (Figure 11).

Figure 11. Programme Aid by Geographic Region, 2000



Source: WFP 2001.

It is clear that large-scale surpluses, combined with low world grain prices and food crises in countries of strategic interest led to huge additional flows of food aid through programme channels. Temporary fluxes of this nature are

likely to occur in coming years. In 1998/1999, the United States Government initiated a special food aid initiative that authorized donations of surplus commodities to countries such as Bosnia and Herzegovina, Macedonia, the Caucasus and Albania. According to the Agriculture Secretary, this was a way to "reduce our wheat surpluses here at home while meeting humanitarian needs abroad" (USDA 1998). Other countries of geopolitical importance are likely to warrant similar programme assistance in future decades, possibly including key players in the Middle East peace talks, central asian republics that embrace further economic reform, and post-conflict governments of low-income, food-deficit countries in Africa.

However, it can be argued that the scale and frequency of programme aid increments will decline over time. Recent research has shown unexpected negative externalities to United States' investments in programme food aid wherein trade-displacement costs are borne primarily by the donor (Barrett et al. 1999). The threat during 2000/2001 by Russia to impose tariffs on United States' frozen chicken (originally imported as programme food aid) may cause renewed questioning in the United States regarding longer-term market share benefits of that kind of bilateral assistance. Indeed, by 2002, Russia was negotiating with WFP to become a donor for the first time—joining a growing list of new non-traditional donors, including Algeria, Jordan, Nigeria, Thailand and Viet Nam.

EMERGING ISSUES

A number of additional issues need to be addressed in the context of the continuing evolution of thinking on targeted food aid priorities. Three such issues are raised here.

Reducing Fluctuations in Food Availability

As noted in the last section, there is increasing concern about the erosion of the already limited capacity of food-insecure households to manage and withstand shocks (Wodon and Morris 2001; Quisumbing 2001). Successive droughts, periodic floods, conflicts, inadequate maintenance of previously constructed infrastructure, and political and economic instability can compound the daily risks facing vulnerable communities, often forcing people to resort to strategies that undermine their long-term wellbeing. What is more, investments aimed at economic development, poverty reduction, social cohesion, or environmental enhancement can be compromised by the strategies people use simply to survive on a day-to-day basis. Such private strategies aimed at risk reduction are often least efficient when shocks are generalized. For example, in a region where most of the population is affected, if cutting down trees for sale as fuel wood is one of the few means of survival, then many families will bring additional wood to the market, thereby driving its price down

and reducing the return on each sale. Also such "coping" mechanisms may still not prevent poor households from engaging in criminal or marginalizing activities. Thus, while individual risks may be specific and private, the public sector can be affected by them, and therefore should facilitate effective measures for managing those risks.

The World Bank calls this idea "social risk management" (Siegel and Alwang 1999); others have focused on the concept of livelihoods' enhancement (Young et al. 2002). Social risk management and livelihoods' approaches seek to combine the best of private coping strategies (income diversification, the building of social capital, asset accumulation) with various public transfer programmes that can be designed with both redistributive and risk-reduction roles in mind. The redistributive function seeks to mitigate the negative impact of economic growth policies. The risk-reduction role aims to protect households from significant income and consumption shortfalls associated with temporal shocks.

Well-designed risk management investments not only prevent the poor from resorting to coping behaviours that undermine their futures but also ensure that crises do not halt human development (accepting that disasters can impair, not just delay development). As van de Walle (1998) argues in the Vietnamese context, "there is … mounting empirical evidence that by enhancing the ability of poor households to cope with risk, schemes which are usually considered short-term, stop-gap measures may have important longer-term impacts on productivity and efficiency. Achieving these goals can also contribute to political stability and income equity - both important concerns of the government."

Indeed, ensuring stability during and after periods of economic instability can be a key to facilitating the political acceptability of market-based, and other reforms (Milanovic 1998; Gough 2000). During the 1990s the World Bank supported safety net developments in a variety of guises in more than 60 countries, and today it sees investment in social risk management as central to longer-term development (Jorgensen and Van Domelen 1999; Holzmann 2001). For example, the future of macroeconomic reforms in many transition economies depends on enhanced investment in, and coverage of, such programmes among the region's most vulnerable populations. Fast-growing economies need to cushion the risks of rapid growth, just as much as snail economies need to cushion the risks of their slow growth.

Smoothing consumption is not a new idea in itself, but its role in addressing the dynamics of food insecurity has only recently received significant analytical attention (McCulloch and Baulch 1999; Yaqub 2000). For example, a study by Antolin et al. (1999) of six developed countries found that "poverty" is not a static condition. Rather, multiple transitions in and out of poverty are the norm. The authors found that the number of people "touched" by poverty (i.e. being below the poverty line at least once over a six-year period) is significantly larger than the cross-sectional poverty rate might suggest, while the share of households staying poor for a long period (the chronically poor) is smaller. The same was found in an analysis of ten developing

countries (Baulch and Hoddinott 2000) that showed that if households are categorized as always poor (chronic) or only sometimes poor (transitory), the share of transitory poor households is almost always larger than that of chronically poor ones.

The implications of this are twofold. On the one hand, a better understanding of the nature of food insecurity and related poverty should allow for better-tailored interventions. Numerous, but short, recurring spells of hunger may suggest that priority should be given to initiatives that ensure a smooth flow of resources in difficult times, not through untargeted programme aid (which has been shown by Barrett [2001] to be "ineffective in stabilizing food availability at the macro level"), but through targeted consumption credit schemes, public employment (food for work), and possibly community-level revolving grain banks that support vulnerable households through hard times (McCulloch and Calandrino 2001). On the other hand, extended spells of deep poverty may point to the need for human and other capital accumulation policies such as those regarding soil and water management investments that raise agricultural productivity, education through food-for-education initiatives, and health investments linked to food-assisted mother-and-child activities.

The second implication of the findings on transitory poverty is that where food consumption levels fluctuate, greater gains may be made from smoothing fluctuations and uncertainties than from simply seeking to reduce the percentage of total households below a fixed line that describes "undernourishment". For example, in Viet Nam it has been estimated that the national incidence of poverty could be reduced to 34 percent by implementing conventional growth policies, but this would carry the penalty of increasing national income inequality (to a Gini coefficient of 0.38). By contrast, more equitable growth (resulting in a Gini of 0.30), albeit at a lower aggregate level, would allow the poverty rate to fall to just 22 percent of the population (World Bank 1998). The better distribution of income, and the greater stability in that distribution, results in greater gains overall. The same applies to food poverty and the distribution of required energy and nutrients.

Similarly, McCulloch and Baulch (1999) found that in Pakistan if income flows were smoothed out using a set of moving average filters, the effect on poverty would be quite striking: the squared poverty gap would fall by 50 percent simply as a result of the smoothing. Since there is no increase in mean income levels, the incidence of chronic poverty remains unchanged, so the large effect comes from a 64 percent reduction in transitory poverty. In fact a two-year smoothing achieved the same reduction in overall poverty as an increase in mean real adult equivalent income of almost 40 percent. In other words, anti-poverty programmes need to combine longer-term sectoral growth models with consumption smoothing initiatives that will effect a potentially larger reduction in aggregate poverty in the shorter-term. These might include safety net interventions, public works with a stronger employment guarantee element, crop insurance, inter-seasonal grain banking, and some targeted food price stabilization schemes.

However, to make an effective dent in the number of food-insecure people (who inherently face multiple risks), those people need to be reached where they live. This requires a focusing of food aid and other resources on the very people most marginalized and still outside the mainstream of development (Webb 1998). This is a major challenge. Risk-reduction activities and development investments are costly and potentially of low cost-efficiency in the places where such people live (due to the many interacting needs and lack of supportive human and physical infrastructure). This represents one of the greatest paradoxes of the food aid agenda: where food aid is most likely to provide valued assistance, it is least likely to be cost-effective in conventional economic terms. For this reason, donor activities aimed at stabilizing consumption and risk-management capacities require a sound domestic platform on which to build.

The importance of domestic programmes using food transfers in the fight against food insecurity is growing. Large and small initiatives have been documented, not only across Asia (WFP 2001) but also in Africa and Latin America (von Braun et al. 1999). While some of these initiatives are designed explicitly to cushion the effects of shocks (Sumarto et al. 2001), others have been framed as a springboard for more inclusive development (Handa and King 2001; Ahiadeke et al. 2002). International programmes increasingly seek to integrate with such activities, sharing knowledge, facilitating local purchases and modes of targeted redistribution, and designing development activities that in themselves can allow for timely and effective response when crises hit.[12]

In all such approaches there is a local recognition of two important facts: first, that food can have an important role to play as a development resource in its own right. Second, that food-assisted activities can achieve some well defined goals. Indeed, most empirically sound reviews of food-assisted development activities during the 1990s were guardedly positive about those activities' developmental value (CMI 1993; Ruttan 1993; Clay et al. 1998; Barrett et al. 1999; Bellin-Sesay et al. 1999; Mohapatra et al. 1999; Barrett 2002).[13]
That said, while support for food-assisted development has remained steady since the mid-1970s (with project food aid generally receiving 15 to 25 percent of the global total), much of this supply was driven by surplus disposal from the United States, and it is uncertain how much longer even this commitment will last.[14]

Food Aid as Food

A further implication of the explicit role of food aid *as* food relates to micronutrients. Relief agencies have been forced to

12 The local procurement of food aid grew considerably during the 1990s, rising from around 230,000 tons in 1989 to almost 500,000 tons in 2000. Triangular transactions also grew in the first half of the decade, from around 750,000 tons in 1989 to 1.6 million tons in 1995 (since then returning to previous levels). While the purchase of foods in developing countries can be sometimes cheaper, faster and lends itself to greater dietary appropriateness than conventional shipments, there are also transport problems, quality control is more difficult and universal fortification is arguably infeasible.

13 For example, Barrett (2002) argues that evidence on food aid interventions suggests that they "can increase food consumption,… and anthropometric indicators of nutritional status, that they can be effectively targeted to intended beneficiaries with reasonably modest leakage and without generating inordinately costly direct administrative costs or severe price, policy, labour or consumer demand disincentives. But there have also been many costly or ineffective [programmes]."

14 The share of United States PL.480 Title II food aid used in development projects rose from seven percent in 1989 to 46 percent in 1998 (USAID 1999).

acknowledge that long-term consumption of low-nutrient food aid can itself be a cause of such micronutrient deficiencies as scurvy, beriberi and xerophthalmia. Also, the fortification of food aid for use in development and relief is an urgent agenda item for several donors (Toole 1992; Hansch 1999). Numerous governments have paid close attention to experimental weaning or supplementary foods (such as Indiamix in India, Totomix in Tanzania, and Lukuni Phala in Malawi) that are sometimes "fortified" with micronutrients and often produced by the private sector with mainly local ingredients. Problems arise when trying to sustain indigenous producers, whose capacity exceeds local demand, in ensuring the availability of non-local inputs for fortification, in meeting additional costs (some agencies are concerned that macronutrient quantity must be sacrificed in order for micronutrient quality to be standardized), in "fortifying" food procured in developing countries, and in addressing the question of beneficiary preference.

Most developing countries cannot afford to insist on the same food quality standards as those demanded by industrialized countries. Already there exists a quasi two-tier trade system in which exporting firms operate using different quality standards according to their market. Already concerns have been raised about the diversity and quality of food aid delivered to Bosnia and Kosovo compared with, say, Rwanda or East Timor. In 1998, for example, 20 percent of food aid deliveries to the Europe and NIS region comprised high-value, non-cereal commodities (WFP 1999b). That was a much higher share than anywhere else in the world, despite the fact that 1998 recorded the lowest global level of non-cereal shipments. Donors claim that this share reflects attention to the nature of local diets.

CONCLUSIONS

While there is much talk during summits and conventions of meeting the needs of hungry people, there is only limited international agreement either on (a) how to define and assess such needs; or (b) how best to respond to needs however they are defined.[15] While progress is being made towards the aggregate food and nutrition goals established by the World Food Summit (halving the number of undernourished people), that progress is both too slow to make the 2015 deadline and too inequitable to allow all countries to meet the goal. Some countries have made outstanding gains, while some have stood still or suffered reverses. Indeed, during the 1990s, only 32 of the 99 developing countries recorded a decrease in the number of undernourished people (FAO 2002b).

What must be done differently? The World Bank's Chief Economist argues that to overcome hunger in the decade "we must push vigorously on trade" (World Bank 2002b). FAO argues that actions are needed to enhance "the prevalence of good governance, the rule of law, and peace and political stability; [and] a holistic development strategy which … accords high priority to the needs of the poor" (FAO 2002c). The Department for International Development (DFID) (2002) suggests that "a multi-sectoral approach is required to reduce malnutrition, including the promotion of health and education … and improving access to safe water." DFID (2002) suggests that "food aid is a key tool" although there is need for a "radical overhaul of the institutional arrangements for food aid." The United States Department of Agriculture (2002) also suggests, in its most recent projection of food aid requirements that by 2011, more than 16 million tons will be needed to meet the nutrition needs of the poorest people in 67 developing countries. In other words, many of the usual solutions to hunger are proposed at a time when Official Development Assistance (ODA) has stagnated, trade talks face renewed difficulties due to the direction taken by the United States and the European Union farm policies, and food aid flows are in most years below 12 million tons per annum, with most allocated to emergency relief (OECD 2002; FAO 2002b).[16]

Thus, while much changed for the better for food aid activities during the 1990s – in terms of tightening standards of professionalism and accountability, dovetailing public and private action, and the entry of new food aid donors (such as Slovenia, Poland and South Korea) – the uncertainty about food aid's future remains. The predominant role of the United States and Europe is unchallenged, and the strategic interests of these donors continue to be paramount. Although there has been a shift towards the ideal of untied, multilateralism (in which development objectives outweigh commercial and foreign policy goals), progress has been slow outside of emergency relief. The absence of any code of conduct for

15 DFID (2002) argues that "new approaches are required for the measurement of hunger at global and national levels".

16 *The Economist's* global food index surged by 11 percent from June to July 2002, reaching its highest level since 1998. Based on past experience, this suggests that overall food aid donations in 2002/2003 may be lower than in 2000 and 2001 (*Economist* 2002).

programme aid, for instance, is a hurdle to the principle of a truly demand-driven food aid regime. No new economic paradigm has been put in place that would stabilize the boom-bust cycle of food aid supplies. No new world order exists to enforce a hungry person's right to food.

With global foreign assistance showing little signs of expanding, and the commitments made in Monterrey not yet realized, there is limited scope for increasing funding for targeted food aid activities outside of major humanitarian emergencies. When there are large agricultural surpluses, bilateral programme aid will continue to play its traditional role of surplus disposal – a form of transfer that has only limited impact on the well-being of the very poor. When donor grain and/or budgetary surpluses are limited, targeted aid flows are also typically constrained. It is therefore most likely that recent levels of food aid flows will be stable (but below demand) for the coming few years, since the economic, institutional and political parameters within which food aid donations are determined remain largely unchanged. A commitment to meeting emergency needs is still strong, but other food assistance activities will continue to be driven by prices, harvest surpluses and donors' own agendas.

It is perhaps project (development) food aid that offers the most scope for change, in terms of greater relief-development convergence, improved nutrient quality, and support for food-nutrition synergies. However, if aggregate supplies remain constrained and demands for emergency relief increase, it is very possible that the project portfolio may shrink. In the absence of increased compensatory flows of narrowly targeted financial assistance (an unlikely outcome despite all the literature seeking to justify cash instead of food), the food insecurity of many millions of households could worsen. Given that those millions of people would not be found in large or easily accessible developing regions, it is all too possible that aggregate goals could be met by 2015 despite the continued hunger of huge numbers of people.

Food aid's targeted advantage is to help meet the consumption needs of those millions of marginalized people. As argued by the Overseas Development Institute (ODI) (2000), hunger needs to be addressed through a "comprehensive package of food assistance measures, devised and implemented nationally, and with international support". However, an emphasis is needed in such a package on smoothing consumption risks in risky environments, building investments in ways that enhance responses to tomorrow's crises, and building on the essential nature of food aid—that it is food, and hence a desired resource, not just a resource of last resort.

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Layout images: from left to right, imagebank; WFP/C. Hughes; imagebank; WFP/M. Huggins; WFP/T. Haskell

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