Agricultural Trade and Food Security

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PHILIPPINES
Agricultural Trade and Food Security

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Foreword

How does a $16,000 subsidy per farmer in the U.S. translate into food insecurity for households in Cagayan Valley? How does a few percentage point rise in grains demand in South Korea drive up meat prices in the wet market of Valencia in Cotabato?

This book takes us through the interaction of international trade realities and national policies, and how they impact on the survival strategies of even remote households and villages. Knowing and understanding such links raise larger and pressing considerations for development work in many communities.

This is not new to many community development practitioners in the country. On the contrary, the need to understand the interaction of global events and national policies on the one hand, and household and community concerns on the other hand, has always been with our development workers. If there ever was an illusion that we can forget about the rest of the world while we pursue an improved quality of life in the communities we reach, it is being shattered today by globalisation. Not least because national and global policies are redefining the terrain of development engagement with new and compelling intensity, shaping the prospects of even the remotest communities, and at times deconstructing years of dedicated and painstaking work.

The need for a wider range of tools of analysis and intervention, especially in the field of economics and in macroeconomic policy-making, is upon us. Through this book and other publications that will follow, the Philippines office of Oxfam United Kingdom and Ireland will attempt to contribute to filling that need, and hopefully contribute also to efforts at bringing micro development concerns into macro development programs and policies.

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Philippines Office - Oxfam United Kingdom and Ireland
Kevin Watkins is a senior policy adviser of Oxfam-United Kingdom and Ireland. He prepared the early drafts of this paper with the assistance of Ms. Penny Fowler of the Catholic Institute for International Relations (CIIR). Mr Watkins also wrote The Oxfam Poverty Report, © Oxfam, 1995; Fixing the Rules: North-South Issues in the Uruguay Round, © CIIR, 1989; and Changing the Rules, GATT Briefing, Rongead, 1990.

This paper is based on the presentation made at the South East Asian NGO Conference on Trade Liberalisation and Food Security in Southeast Asia: Prospects and Strategies, on February 13-16, 1996 at Balay Internasyonal, University of the Philippines, Diliman, Quezon City, Philippines.

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Agricultural Trade and Food Security

Hubert Humphrey
(1957)

"I have heard...that people may become dependent on us for food. I know this is not supposed to be good news. To me that was good news, because before people can do anything they have got to eat. And if you are looking for a way to get people to lean on you and be dependent on you, in terms of their cooperation with you, it seems to me that food dependence would be terrific." ¹

John Block
US Agricultural Secretary (1986)

"The push by some developing countries to become more self-sufficient in food may be reminiscent of a by-gone era. These countries could save money by importing more food from the US." ²

Koofi Awoonor
Ghana's Ambassador to the UN (1991)

"While they are telling us that in Africa you cannot subsidise the farmer, there is no country in the Western world that does not subsidise agriculture." ³
Commenting on farm policy debates in the US some seven years ago JK Galbraith remarked on the pervasive influence of free-market thinking. “No one can be without sin,” he wrote, “who does not at least daily affirm his belief in the profound beneficence of free market forces.” His observation applies with equal force to the international stage, especially since the conclusion of the Uruguay Round. Today, no meeting on world agriculture is complete without a free market liturgy. The profound virtues of the price mechanism in determining what is produced, where it is produced, and who produces it are extolled with a relentless enthusiasm, and nowhere more so than in matters of international food trade.

The theme is familiar in much of the developing world, where trade liberalisation and market deregulation are now the keystones of agricultural modernisation strategies. Central to these strategies is a conviction that staple food producers should compete against imports, while public investment resources are concentrated in areas with an export potential. Comparative advantage arguments are widely cited as evidence of the efficiency gains which will
follow, for North and South alike, if governments place their faith in the market place, allowing their agricultural producers to compete on a level playing field. Econometric projections by the Organisation for Economic Co-operation and Development (OECD) and the General Agreement on Tariffs and Trade (GATT), which have anticipated ever more heroic economic growth outcomes from liberalisation, are cited with the deepest reverence as evidence of the need for public authorities to get out of agriculture.

As in other areas of international trade, the free market principles espoused for agriculture are honoured as much in the breach as the observation, especially by their most zealous advocates. Northern governments may preach the virtues of free trade in farm policy, but they regard implementation of the deeper, sterner rules of the market primarily as the responsibility of other people - notably those living in developing countries. Thus while Third World governments liberalise their food systems, northern agriculture continues to develop and maintain its global market domination under highly protected and massively subsidised production systems.

Collectively, the OECD countries spend the equivalent of around $175 bn annually in subsidising agricultural production and farm incomes\textsuperscript{5}, suggesting that while free trade theology may serve as a guide to conduct in the next world, free trade practice is conspicuous by its absence in this one. To put this figure in context, it is equivalent to more than double the national income of the Philippines. In contrast to the Philippines, where agriculture accounts for almost half of overall employment, in Europe and Northern America, less than 5 per cent of the population are involved in farm production.
In the real world of agricultural trade, market survival depends less upon comparative advantage, than upon comparative access to subsidies—an area in which northern producers enjoy unrivaled dominance. Stated differently, the level playing field in world agriculture runs all the way downhill from Europe and North America into the fields and villages of sub-Saharan Africa, Latin America and Asia.

The Uruguay Round will not substantially alter this position, except to enhance the advantage of northern agriculture. As we show in this paper, the subsidy systems of the major industrialised countries will remain intact, while developing countries will be required to further liberalise access to their markets. This imbalance is not widely recognised in developing countries, where the Uruguay Round agreement has been welcomed as the first step towards a more stable food trading system. But like most acts of fraud, the Uruguay Round agreement is better understood by its architects, in this case the European Union (EU) and the US, than by its victims.

Viewed through the lens of history, the Uruguay Round marks the latest phase in the evolution of a global food system structured around the interests of the North. Agricultural policy in the US and the EU has created, at enormous social and environmental cost, a capacity for sustained over-production through capital intensive, industrialised farming. Ever more imaginative and costly mechanisms have been devised to dispose of the resulting surpluses, especially in the developing world. The use of PL 480 to undermine Third World food systems and create dependence on US exports has been well documented.

Subsidisation of commercial exports has been used for similar purposes by both the US and the EU, destroying markets for smallholder producers in developing countries and cultivating
tastes for imported foodstuffs, with local staples being displaced by processed imports. The spread of wheat-based bread diets is the most visible manifestation of this process. It is true that, over the past two years, dumping pressures have receded in the face of a sustained rise in world prices. However, the contention of this paper is that the structural over-capacity of northern farm systems remains intact; and that this over-capacity will be exacerbated by responses to current world market conditions, which have included measures to remove constraints on production.

Arguments that northern food systems have both an opportunity and responsibility to feed developing countries, are a source of concern in this context. One of the central food security challenges is to reduce the surplus dumping activity of northern producers to enable food deficit regions to become more self-reliant. This will require a combination of public investment and protection from unfair competition in local markets. Unfortunately, the Uruguay Round agreement will reinforce other mechanisms—including regional trade initiatives and structural adjustment programmes—which hinder the capacity of governments to protect their food systems. The results could be especially damaging for South-East Asia, since countries in this region have been targeted by the US as potentially lucrative markets for agricultural exports.

This paper advances two simple propositions. The first is that enhanced competition between the surplus agricultural systems of the industrialised world and the deficit systems of the developing world, will exacerbate problems of food dependency and destroy the livelihoods of vulnerable communities. One of the central food security challenges is to end over-production in the North so that the food systems of the South can develop. Neither the Uruguay Round agreement nor the farm policy reform process
now underway in Europe and North America will achieve this objective.

The second proposition is that there are sound economic as well as more pressing social reasons for protecting the food systems of the South. This is not to advance a case for autarchy in food production, but to suggest that in markets distorted by subsidised over-production, comparative advantage arguments must be treated with caution.

Quite apart from imposing unacceptably high human welfare costs in terms of livelihoods, liberalisation in food markets characterized by extensive dumping will not necessarily lead to economically optimal outcomes. This is for the obvious reason that price signals will be an imperfect guide to scarcity, and hence to optimal resource allocation. In this context, any analysis of the impact of agricultural trade liberalisation on food security needs to proceed not by rehearsing old arguments about the relative virtues of 'the market' and 'the state' in setting prices, but by considering the real markets in which producers operate; and by balancing a wide range of potentially conflicting policy objectives, including economic efficiency, food security and environmental sustainability.

This paper is organised as follows:

*Part 1* outlines the structure of international food markets and the links between food trade and food security.

*Part 2* examines the extent of OECD surplus dumping and the implications of the Uruguay Round agricultural agreement.

*Part 3* explores the mechanisms through which international food trade undermines food self-sufficiency, focusing on the experience of sub-Saharan Africa and the threats facing South-East Asia.
Part 4 critically considers the relevance of comparative advantage arguments in debates on food security, and argues that these fail to address the distributional issues at the heart of food insecurity.

Part 5 provides a case study of the maize sectors of Mexico and the Philippines, where trade liberalisation has contributed to the destruction of smallholder livelihoods.
The International Food Trade System

FOOD MOUNTAINS AND MALTHUS

In 1974 agricultural ministers from around the world met at the World Food Conference in Rome. International prices had reached a peak, having quadrupled in less than two years. A flood of books and articles were written warning that the rise in prices reflected a growing divergence between the productive capacity of the global food system and population growth. Capturing the mood, the US Agriculture Secretary and his advisors urged farmers to ‘plant from hedgerow to hedgerow’ to meet growing world food needs. The international agenda was dominated by neo-Malthusians, who warned that rising prices were the symptom of a widening gap between population growth and food production: and the Club of Rome’s influence was at a peak.6

FROM SURPLUS...

Three years later, world prices had fallen below the level of 1970 to their lowest point in over twenty years.7 Within a decade, the expression ‘world food crisis’ had acquired a different meaning. By the mid-1980s, farm policy debates were dominated by a concern
not over shortages, but over surplus disposal. Stocks of cereals and dairy products had reached historically high levels, contributing to the deepest and most protracted slump in world prices since the Great Depression. In 1986, cereal stocks were equivalent to two-and-a-half times annual trade volumes.8

Ever more imaginative solutions to the problem of surplus disposal were sought and found. European wheat was used to fuel power stations, milk was tipped into rivers, and Cognac grapes were trampled into industrial alcohol. While images of the Ethiopian famine provided a constant reminder of the scale of world hunger, policy makers in the European Commission actively debated the relative cost advantages of keeping cereals in disused air-force hangers, disposing of it in the North Sea, and dumping it in Russia. The North Sea option was rejected only on cost grounds. Meanwhile, Americans were filling Rocky mountain caverns with butter, and selling wheat at less than half of its costs of production. An editorial in The Economist lamented the 'Alice in Wonderland' economic logic which led governments to pay their farmers three-times above world market prices for cereals, which then had to be disposed of through costly export subsidies.9

...TO SHORTAGE

Today, the wheel has turned full circle. For the past three years, international grain consumption has outstripped production. Over this period, prices have doubled to a fifteen year high and cereals stocks have fallen to their lowest levels in over two decades. Parallels have been drawn with earlier periods of tight supplies and high prices, including the early 1970s. In the European Union (EU) cereals stocks have fallen by 11 million tons to 4 million tons over the past year, generating a mild panic fueled by media accounts of empty storage sites. Export subsidies have given way to a tax on
wheat exports. In the US, market analysts are predicting a further hike in maize prices, with stocks at their lowest levels since 1974. On the international stage, mounting concern has been expressed over the rapid depletion of grain reserves. Globally, cereals stocks are forecast to fall in 1995/1996 to 221m tons, which is their lowest level for two decades and, at 14 per cent of consumption, well below the 17 per cent level that the FAO considers the minimum necessary to safeguard world food security. According to a recent World watch Institute report, "the world's food economy may be shifting from a long-accommodated period of overall abundance to one of scarcity." Taking up an earlier theme, the report points to a widening gap between rising demand in the Chinese market, fueled by population growth, urbanisation and declining farm productivity, and supply in the major exporting countries.

**FIGURE 1.** PERCENTAGE OF CEREAL STOCKS TO CONSUMPTION AND OF FOOD AID TO IMPORTS

<table>
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<tr>
<th>Year</th>
<th>Cereal Stocks to Consumption</th>
<th>Food Imports/Food Aid</th>
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<tr>
<td>72/73</td>
<td>35%</td>
<td></td>
</tr>
<tr>
<td>86/87</td>
<td>25%</td>
<td></td>
</tr>
<tr>
<td>92/93</td>
<td>20%</td>
<td></td>
</tr>
<tr>
<td>93/94</td>
<td>15%</td>
<td></td>
</tr>
<tr>
<td>94/95</td>
<td>10%</td>
<td></td>
</tr>
<tr>
<td>95/96</td>
<td>5%</td>
<td></td>
</tr>
</tbody>
</table>

**Source:** FAO and International Grains Council
FOOD AVAILABILITY AND FOOD SECURITY

Few things can be predicted with any certainty in international agricultural trade. One of them, is that any increase in world prices will generate apocalyptic visions of the neo-Malthusian variety. Such visions are at variance with reality. At a global level, the predicted discrepancy between food output and population growth has not occurred. World supplies of food are 18 per cent higher per capita than they were when the World Food Conference took place. Since 1980, world cereals yields have increased by about 2.2 per cent a year, compared to a population growth rate of 1.7 per cent (which is projected to fall to 1 per cent by 2025).

Other things being equal, there is more than sufficient grain available - roughly 1.5 times more - to meet basic human energy needs. Even assuming rapid population growth, past productivity trends do not point to a widening gap between global food supply and demand. Indeed, projections by the FAO and the World Bank point to an increase in per capita cereals consumption in the developing world from 236 kg in 1989/1991 to 296 kg by 2025.

All of which raises the fundamental question ‘does it matter’? Whether the world food system is in surplus or deficit, the hungry and the poor are, it seems, always with us--and in growing numbers. While it is an obvious truism to suggest that food security is linked to food output and availability, both nationally and globally, the linkages are at once weaker and more complex than is often assumed. If human welfare were determined by food availability, there would be no hunger in the US. Yet in the world’s most powerful agricultural export economy an estimated 30 million people suffer from inadequate diets, and the number of children
living in poverty rose by more than 15 per cent in the 1980s. Such food security paradoxes reflect the fact that, throughout the global food system, food transactions occur primarily to enhance the diets of already adequately nourished people, rather than to meet the needs of the hungry. In the case of coarse grains, about 70 per cent of trade is directed towards the animal feedstock sectors for conversion into meat. From a nutritional perspective, this represents a highly inefficient form of energy-protein conversion, and one which means that wealthier people consume larger quantities of grain indirectly.

The same tensions are to be found within national food systems. In Egypt, the national daily protein and calorie supply is higher than for all but four other middle-income countries, and for many high-income countries. Despite this, Egyptians suffer from exceptionally high levels of malnutrition, with one-quarter of all children suffering from moderate to severe stunting. The reason: Egypt grows more food for animals than for humans. Just under half of Egypt's cultivated land area is now used to grow animal fodder for the country's livestock industry. Feeding animals has required an enormous and costly diversion of staple food supplies from human to animal consumption, with important distributional implications. Protein in the form of animal products costs over ten-times the price of eating it in the form of beans and lentils.

The importance of income and asset distribution explain the functioning of food systems in a fundamental way. International food trade and market transactions are dictated by effective demand, or demand backed by purchasing power. When a large number of people are excluded from markets by virtue of their poverty and social marginalisation, market mechanisms are highly ineffective for achieving food security. This is central to
understanding what the economist Armatya Sen has identified as the system of 'entitlements' through which individuals gain access to food.

The problem of world hunger is a problem of inadequate access to food stocks, even when these are sufficient to meet human needs. International trade cannot resolve this problem, but it can exacerbate it. As the mechanism through which the industrial farm systems of the North interact with the smallholder systems of the South, international trade has an important bearing upon where food is produced, who produces it and who gains access to it. The surpluses generated by the food systems of the North limit the productive capacity of deficit food systems in the South; they destroy the capacity of smallholder producers to meet minimum national self-sufficiency requirements; they expose vulnerable populations to dependence on world markets; and they destroy the livelihoods of vulnerable rural producers by undermining local markets and depressing household incomes.

Against this background, responses to recent developments in international markets represent a cause for concern. As in the early 1970s, powerful international grain trading companies, agro-chemical firms and big farmers are arguing for production strategies geared towards world market opportunities. Already inadequate supply-control measures are being withdrawn and increasingly capital intensive production methods being encouraged. Neo-Malthusian arguments are being recycled, not least by powerful agro-industrial lobbies, to justify the expansion of northern production in order to meet the growing food deficit in the South. As we suggest below, the likely consequence will be a further loss of self-reliance, as local food producers see their markets destroyed by cheap imports from the North.
WORLD MARKET POWER IN CEREALS

Any analysis of the linkage between international food trade and food security must start from an analysis of the international market place. This bears little resemblance to the free market idyll which dominates in current debates. Two characteristics are of special relevance for developing countries: namely, the concentration of economic power in the northern hemisphere, and the degree of subsidisation by major exporters.

The most important category of traded foodstuffs are wheat and coarse grains (mainly maize). Exports of these products generate about $20 bn in foreign exchange earnings annually. As indicated in Table 1, the US, the EU and Canada account for about 80 per cent of world wheat exports, and the US alone for one-third of the total. In the case of maize, the US accounts for three-quarters of world exports, following the withdrawal of China from international markets.

Import demand is also highly concentrated. Just eight countries accounted for over half of wheat imports in 1994, with demand focused on the major North African markets and the Pacific Rim. Out of the 95m tons imported in 1994/1995, Algeria and Egypt accounted for 11m tons and China for 12m tons, accounting for around one quarter of the total. In the case of maize, seven importers account for two-thirds of market demand, and three of them (Japan, South Korea and Taiwan) almost one-half.

CONCENTRATIONS OF MARKET POWER

The structure of supply and demand in international agricultural markets has important food security implications. Most obviously, the price and availability of internationally traded grains depend
crucially upon production conditions in a few key suppliers, and
demand conditions in a handful of major markets.

On the supply-side, production conditions in the US and the EU
are the most important factors. In terms of overall production, a 10
per cent decline in the US wheat crop would reduce world output
by only 1 per cent, but it would reduce world export supplies by 6
per cent. Similarly, a 10 per cent production shortfall in Japan, Korea
and Taiwan would represent around 0.5 per cent of global pro-
duction, but if compensated by imports would increase world
demand by over 5 per cent.

The US is effectively in the position of a global price setter, with its
domestic intervention price—or Loan Rate—being transmitted to
world markets through exports. The EU follows US prices, tradi-
tionally with whatever subsidies are necessary to bridge the
gap between US export and world prices and its traditionally
higher domestic price. Thus the prices at which export activity
takes place are the residual outcomes of farm policies in Europe
and North America. Of the many considerations which inform
these policies, feeding people in developing countries does not
figure prominently.

The thinness of international markets is one major factor behind
their volatility, with only around 14 per cent of wheat and
coarse grain output traded on international markets. Another is
the weight of US and EU farm policy interventions. Changes in US
stock holding policy have especially strong price transmission
effects, as do US and EU export subsidy policies. To the extent that
northern agricultural policies send price signals which are unrel-
lated to world market conditions, they add to the adjustment
pressures faced by other producers.

EXPORTS

Others 11%
Argentina 8%
Australia 8%
Canada 21%
EU 18%
US 34%

IMPORTS

Indonesia 2%
Japan 26%
Others 42%
Malaysia 3%
Mexico 5%
S Korea 13%
Taiwan 9%

SOURCE: INTERNATIONAL GRAINS COUNCIL (PROVISIONAL ESTIMATE)
FIGURE 3: INTERNATIONAL TRADE IN MAIZE

EXPORTS

Argentina 9%
Others 11%
South Africa 4%
US 76%

IMPORTS

Egypt 5%
South Korea 12%
Japan 28%
Malaysia 3%
Taiwan 4%
Indonesia 2%
Mexico 5%
Others 41%
On the demand side, changing patterns of production and consumption in countries such as China, Egypt or the former USSR have powerful effects on world prices. Indeed, most ‘food crises’ in recent times have not been the result of changes in overall global availability, but of relatively marginal changes in major markets. The US drought of 1988, to take one example, resulted in a 50 per cent world price rise. More recently, the sharp rise in international maize prices in 1994 was the result of a marked fall in the US maize harvest and China’s transition from a maize exporter to a net importer. Because of the volatility in international markets, stock levels and production forecasts for the major suppliers and market outlets fuel intensive speculative activity, which exercises an important influence without necessarily reflecting market realities. One recent example of this trend was provided in March, 1996, when the discovery of a fungus in wheat led the USDA to suspend exports and threw markets into chaos.\textsuperscript{11}

**PRICE VOLATILITY, FOOD AID AND ACCESS TO IMPORTS**

The volatility of international markets is one factor which any government must consider in relying for food security on food imports. Over the past year, international grains prices have more than doubled, placing a severe strain on the balance-of-payments of many countries. Powerful exporting nations such as South Korea and Taiwan have the power to absorb such external shocks and maintain access to imports whenever and in whatever quantities, they may be needed. The same does not apply to sub-Saharan Africa and other low-income countries, which are subject to external forces over which they exercise little control and to which they have limited capacity to respond. This was illustrated during the early 1970s, when the Sahelian famine coincided with US policies aimed at reducing food stocks, including direct production curbs which
lowered the 1972 harvest by 8 million tons. Increased Russian demand for livestock intensified market pressures, as did the stock reduction which followed a series of speculative grain deals concluded by US grain companies.\textsuperscript{12}

The Sahel's problems were too small to register on international grains markets, not least since the region lacked effective purchasing power. But the surge in world prices caused by subtle shifts in US-Russia trade relations seriously exacerbated food security problems. The Sahel case illustrates the dangers of food dependence during periods of high prices. But low prices are no guarantee of access to imports. During the 1980s the diversion of foreign exchange from Latin America in the form of debt payments allied to generalised economic collapse led to a decline in per capita food aid availability, with changing implications for urban food security.\textsuperscript{13} For countries in a weak financial position and dependent upon volatile commodity markets, any policy decision about food security must reflect the high degree of risk attached to maintaining imports.

\textbf{LIMITATIONS OF FOOD AID}

Reliance on food aid has not provided security against market volatility, not least since food aid levels tend to contract during periods of maximum need. During the last round of world price increases in 1988/1989, total cereals food aid to developing countries fell sharply. In 1988 alone, the increase in world market prices added about $3bn to the cereals food import bills of food deficit low-income countries, causing havoc in their balance-of-payments.\textsuperscript{14}

This year has followed a similar pattern. In 1995/1996, a year of exceptionally high food prices, food aid will decline to its lowest
level since the mid-1970s. The FAO’s most recent estimates suggest that food aid shipments to low-income countries will cover only 9 per cent of their import requirements for the current year, compared to 18 per cent in 1990.\textsuperscript{15} This is at a time when price rises for food imports will place a severe strain on the balance-of-payments of the poorest developing countries, many of which face deteriorating prospects in commodity markets. Quite apart from the inherent problem of food aid becoming more scarce as stocks fall, donors have often used food aid as a weapon against recipient countries, undermining its effectiveness as an instrument for food security.\textsuperscript{16}

\textbf{US AND EU SURPLUSES}

As the above account of trade patterns suggests, for countries which embark upon integration into global markets the structure of EU and US subsidies is of critical importance, since it is these subsidies which determine market competition. This is not the place to consider US/EU policies in any depth (for a brief account see Annex). Suffice it to say that the development and refinement of protection in various forms and guises has been their dominant theme, with special importance attached to transferring subsidies through price support for output.

Unsurprisingly, output has expanded at rates significantly in excess of domestic demand growth, so that self-sufficiency levels have increased and export surpluses accumulated. During the 1980s, production in the EU was expanding at twice the rate of demand.\textsuperscript{17} Even Britain, a major cereals importer for much of its modern economic history, was a net exporter by the middle of the decade. By the end of the decade, the EU was the world’s second largest exporter of cereals, the largest exporter of dairy products and meat, and the largest exporter of sugar.\textsuperscript{18}
The tendency of price support policies to create a situation in which domestic supply is forced on to international markets is graphically illustrated by the case of sugar. The EU’s ascendance as a major exporter, moving from a position of self-sufficiency in the 1970s to a 40 per cent share of international trade in 1986, contributed to the collapse of international prices. This brought social devastation to countries such as the Philippines and the Dominican Republic, which simultaneously had to adjust to a loss of US quotas and a world price slump.¹⁹

In the United States too, income support policies had the effect, at a much earlier stage, of creating a steadily increasing agricultural surplus. These surpluses were at the centre of post-war debates over the rate of public stock holding and price support policy.²⁰ The problem for both Europe and the US has been familiar to any country in which price support leads to output levels in excess of market demand, since governments face only one of three choices: namely, to store the resulting surpluses (which is costly), to release them on to markets (which will depress prices and thereby raise the costs of farm income support), or to dispose of them overseas.²¹

Cultivating dependence

The export dumping option has been the favoured one for the US and the EU. During the 1950s and 1960s, the US systematically cultivated overseas demand, using PL 480 as what one commentator has described as “the Trojan horse” for commercial sales.²² The programme performed the task admirably, using concessional sales, which accounted for about one-third of total cereals exports in the early 1960s, to create multi-billion dollar markets in countries such as Colombia, the Philippines, Indonesia and South Korea. In the case of Colombia, the short-run foreign exchange gains from
concessional imports was offset by longer-term losses in agricultural production and balance-of-payments. From a US perspective, export dumping succeeded in capturing a growing world market share. From the late 1960s to the late 1970s, world imports of grains and oilseeds expanded at over 8 per cent a year, while the US world market share increased from 59 per cent to 71 per cent. Today, one cereals acre in every three in the US is used to produce for exports - and developing countries remain a crucial market outlet. In the case of cereals and sugar, world markets account for over one-fifth of output.

The relentless pursuit of export growth in agriculture has served wider economic and political purposes. In the early 1970s, agriculture was identified by a US Presidential Commission as one of two areas, the other being hi-technology, in which America retained a competitive advantage in relation to the newly industrialising countries. Expanding that advantage was seen as one element in a wider strategy to resolve the country's recurrent balance-of-trade problems.

Today, agriculture retains a pivotal significance for the US economy, generating a significant trade surplus. In Europe, the CAP evolved around a more specific project aimed simultaneously at increasing efficiency, maintaining self-sufficiency and protecting rural society from the vicissitudes of agricultural markets. However, export expansion rapidly emerged as one of the mechanisms for securing domestic farm income support objectives, especially in official French thinking. This was reflected in the concept a destine d'exporter—an expression which captures the conviction that the purpose of exportation goes beyond normal arguments about the benefits to be derived from specialisation and comparative advantage, and towards a larger purpose.
INTERNATIONAL TRADE FRICCTIONS

By the late 1970s, the impetus towards exports built into the farm policies of both Europe and North America were a source of growing friction in international trade.26 The fact that GATT rules had been designed by the US to allow for import protection and export dumping in agriculture, provided a framework for accommodating the CAP. As Europe emerged as a major rival in world markets, so the US became increasingly concerned to use the GATT as a mechanism for restricting the CAP and diminishing Europe's export capacity. Successive rounds of GATT talks were marked by mounting friction, with the EU refusing to subject the CAP to the normal disciplines of world trade.

Matters came to a head in the early 1980s, as a combination of dollar over-valuation, recession in Third World markets and competition from the EU led to a contraction of US agricultural exports and loss of market shares, prompting a twin-track strategy to restore US domination.27 The first track was based upon domestic market reforms, with the 1985 Farm Act introducing deep cuts in market price support (in effect transferring the costs of farm income support away from the market and towards the taxpayer) and large-scale export subsidy programmes to enhance the competitiveness of US products overseas. Measured in budgetary terms, the costs were enormous, with 1986 farm expenditure rising to $26bn, or six times the 1982 level.28 The second track involved the use of the GATT to impose a new farm trade regime which, by promoting trade liberalisation overseas, would expand market outlets for the US while curbing EU subsidy levels.29

As we suggest below, the outcome of the Uruguay Round fell some way short of initial US ambitions, which sought the complete elimination of agricultural support. Nonetheless, the GATT agree-
Agricultural Trade and Food Security

ment will promote US exports both by limiting the EU's subsidy options and opening up Third World markets.

The Costs to Developing Countries

In common with other non-subsidising exporters, developing country exporters have lost market shares and received lower prices as a consequence of surplus dumping. During the early 1980s, the EU's farm policies alone were estimated to have reduced wheat prices by between 9-17 per cent. As the US and the EU engaged in a protracted farm subsidy war these price effects were intensified, with rival exporters facing significant foreign exchange and household income losses as a result. Comparing cereals export prices for 1987 to 1981, Argentina was losing around $3bn in export earnings - equivalent to two thirds the value of imports.

But while it was the interests of non-subsidised exporters which came to the fore during the Uruguay Round, the less visible impact of export dumping on food security was equally severe. By driving down the price of exports, industrial country farm policies had the effect of undermining the competitiveness of local staples, and accelerating the diversion of consumer demand into imported foodstuffs. Inevitably, rural household incomes and investment in agriculture also suffered, with adverse consequences for food self-sufficiency and poverty reduction. We consider these issues in greater detail below.
THE SCALE OF US AND EU DUMPING

Images of a level playing field in world agriculture have been widely used by publicists of the Uruguay Round. The inference is that world agricultural trade has moved into a more competitive environment, in which market forces, rather than government subsidies, dictate competitive advantage. Unfortunately, reality and free market images are at considerable variance with one another. Among the more salient features of the real world in which agricultural production and trade occur are:

- A transfer of subsidies to the farm sectors of the OECD amounting to $175bn in 1994—equivalent to roughly half the value of agricultural output
- Subsidy transfers per full-time farmer amounting to $16,000 in the US and $18,000 in the EU
- Significant subsidy transfers on the major traded cereals, amounting to $23 bn on wheat and maize for the US and the EU. Translated into unit/subsidy terms, this figure converts into subsidies of $66 and $114 respectively per ton of wheat exported from the US and the EU. (See Table 2)
The significance of these subsidies is not merely in their scale, impressive as that is. Their more important aspect is in determining the prices at which international trade occurs, and the terms upon which producers compete with each other. In effect, world prices for wheat and maize are determined by subsidies on the US and EU exports which dominate international trade flows. It is these subsidies against which producers in developing countries are competing when domestic markets are integrated through liberalisation measures into the global market. As indicated in Table 1, smallholder producers of staple crops such as rice, cassava and sorghum face particularly intense competition from the treasuries of Europe and North America, since these provide massive support for the production and export of competitive cereals.

**TABLE 1: 1994 PRODUCER SUBSIDY EQUIVALENTS (PSEs) FOR THE US AND THE EU ($)**

<table>
<thead>
<tr>
<th></th>
<th>US</th>
<th>EU</th>
</tr>
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<tbody>
<tr>
<td><strong>Wheat</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total PSE ($m)</td>
<td>4,179</td>
<td>9,223</td>
</tr>
<tr>
<td>Unit PSE ($t)</td>
<td>66</td>
<td>114</td>
</tr>
<tr>
<td><strong>Course Grains</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total PSE ($m)</td>
<td>5,016</td>
<td>7,888</td>
</tr>
<tr>
<td>Unit PSE ($t)</td>
<td>19</td>
<td>111</td>
</tr>
<tr>
<td><strong>All Products (total PSE $m)</strong></td>
<td>26,227</td>
<td>80,480</td>
</tr>
<tr>
<td><strong>PSE per full-time farmer</strong></td>
<td>16,000</td>
<td>18,000</td>
</tr>
</tbody>
</table>

**Source:** OECD
Even during periods of relatively high world market prices, the differential between production costs and export prices remains considerable. Figures for the US, compiled by the Institute for Agriculture and Trade Policy from official US Department of agriculture data, show that the margin between inflation adjusted 1995 costs of production and export prices stood at 12 per cent for corn, 14 per cent for soya and 16 per cent for wheat (see Table 2).

In other sectors, WTO rules would require that these margins be treated as a yardstick for measuring the extent of dumping, and for calculating a countervailing import duty. However, under the Uruguay Round agreement, the subsidies behind agricultural dumping are not treated as 'trade distorting' measures against which anti-dumping duties will be permissible—a problem to which we return below.

**TABLE 2: US FOOD EXPORT DUMPING 1995**

<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>Corn</td>
<td>3.38</td>
<td>2.96</td>
<td>12.43%</td>
<td>16.21%</td>
</tr>
<tr>
<td>Soybean</td>
<td>7.28</td>
<td>6.24</td>
<td>14.29%</td>
<td>9.82%</td>
</tr>
<tr>
<td>Wheat</td>
<td>5.43</td>
<td>4.56</td>
<td>16.02%</td>
<td>22.24%</td>
</tr>
</tbody>
</table>

Source: Institute for Agriculture and Trade Policy
ECOLOGICAL DUMPING

Comparisons between export prices and costs of production capture an important dimension of surplus dumping activity by northern governments. They do not, however, reflect another dimension which, whilst equally important, is more difficult to measure through the price mechanism: namely, ecological dumping. Broadly, this can be defined as the advantage accruing from a depletion in environmental resources not reflected in export prices. Efforts have been made to re-evaluate national income accounts by subtracting from economic growth the losses occurring as a result of natural resource depletion. To date, however, there has been no parallel attempt to integrate environmental considerations into more commercial measurements of agricultural dumping.

The extent of environmental dumping by northern governments is apparent even from a cursory review of the evidence. In the US, the Conservation Reserve Programme removes 11 per cent of the country’s cropland from production because the land has become too erodible to sustain continuous cropping. The programme was a response to problems of soil erosion caused by intensive cultivation of soya and cereals crops. During the early 1980s, it was estimated that the US was losing the equivalent of over 400,000 hectares of agricultural land a year as a result of soil erosion. The costs of this lost potential for production were not reflected in US export prices. Neither were the costs of groundwater depletion associated with intensive agriculture. In the late 1980s, the US Department of Agriculture reported that water tables were falling by between six inches and four feet a year beneath one-quarter of irrigated land area. Unless farmers reduce pumping, it has been estimated that some four million hectares of land will have to be withdrawn from cultivation. In the San Joaquin valley of California,
one of the main irrigated farm areas, the rate of groundwater pumping now exceeds replenishment by more than half-a-trillion gallons a year.\textsuperscript{37}

There are parallel problems in the EU, where cereals production is even more intensive than in the US. According to the European Commission, at least 25 million hectares of farm land are now threatened by erosion—an area eight times the size of the Netherlands.\textsuperscript{38} In the UK, just under half of all arable soils are at risk of erosion, with top soil losses in excess of 20 tons per hectare in the most intensively farmed areas of eastern and central England. Soils scientists estimate that a loss of 12 tons per hectare can reduce crop yields by 8 per cent.\textsuperscript{39} Once again, however, the resulting economic losses are not recorded either in export prices or national accounts.

The same applies to the cost of nitrate pollution. Level of nitrogen consumption have tripled over the past three decades in Europe, fueling an unprecedented surge in productivity. The result has been a dramatic increase in the pollution of groundwater supplies, with nitrate levels now posing health risks in countries such as the UK and Denmark. It is a similar story in relation to pesticides. Each year, thousands of tons of fungicides, herbicides and insecticides are washed into groundwater supplies, rivers and coastal waters. For the UK alone, it has been estimated that it would cost $700m to reduce levels of pesticide residues to EU drinking water standards. None of these costs are incorporated in export prices. Neither are the wider 'non-market' costs resulting from the loss of wildlife habitats, such as meadows, woods and hedgerows.

The failure of existing price mechanisms to capture environmental costs raises issues which are beyond the scope of this paper. But the subject is central to any analysis of the relationship between food
Agricultural Trade and Food Security

trade and food security. In practice, environmental dumping translates into world prices which do not reflect the real scarcity value of the resources used in production. It follows that, even on narrow commercial grounds, anti-dumping action should be regarded as a legitimate policy response to environmental dumping. This is especially true where environmental dumping has an obvious bearing on international prices, as it does in the case of the US and the EU.

More broadly, governments must consider whether or not to expose their domestic agriculture to competition from food systems built upon an unsustainable environmental base. Where price competitiveness depends upon duplicating the destructive environmental policies of major exporters and discounting the costs, food security considerations suggest a strong case for protection. At present, however, the rules of the World Trade Organisation expressly prohibit the use of tariffs and other import restrictions on the grounds of concern over the production and processing methods used by competitors. They also make no provision for agricultural protection on the grounds of food security.

All change and no change with the Uruguay Round

It is frequently argued that the Uruguay Round agreement and domestic farm policy reforms in the EU and the US have substantially reduced the scope for subsidisation in the industrialised world. A superficial reading of the Uruguay Round text itself might reinforce this impression. Reality is less encouraging. There are four core provisions in the Uruguay Round agricultural agreement. Collectively, these require the industrialised countries to implement.
a 20 per cent reduction in the total value of domestic support for measures defined as 'trade distorting'

- a reduction in budget outlays on export subsidies by 36 per cent, and a reduction in subsidised export volumes by 20 per cent

- the tariffication of all import restrictions and the reduction of these tariffs by 36 per cent overall and no less than 15 per cent for any particular product

- the establishment of minimum market access provisions equivalent to 3 per cent of domestic consumption, rising to 5 per cent by 2000

Impressive as these objectives appear, the Uruguay Round text is designed to minimise the impact on northern subsidy systems. Indeed, the text is based upon an accommodation between the US and the EU, who have re-defined the concept of a subsidy to bring world trade rules into line with their perceived self-interest and surplus dumping practices.

Central to this accommodation are the so-called Green Box provisions, which were negotiated bilaterally between the United States and the EU. Briefly summarised, these allow governments to provide subsidies which are 'non-trade-distorting' in character. The specific instruments permitted include direct payments to farmers which, on the definition used by the US and the EU are 'de-coupled' from production. US deficiency payments, which bridge the gap between the guaranteed intervention price and a politically determined target price to support farm incomes, fall into this category. So, too does the system of direct payments introduced under the 1992 CAP reform, which was itself designed to secure an agreement with the US.
In other words, the main mechanisms of farm income support in the EU and the US will not count as subsidies. This helps to explain why the EU’s direct payments to farmers increased by 25 per cent in 1994, pushing the overall level of agricultural subsidisation up to $80bn, and bringing the CAP to its fiscal ceiling. More generally, the shift away from direct to indirect subsidisation helps to explain why overall subsidy transfers, as measured by the OECD, increased by 5 per cent during 1994, despite a rise in world prices.

**The Green Box**

Other elements in the small print of the Green Box arrangements have further diminished the real subsidy reduction obligations set out in the Uruguay Round agreement. For example the overall period stipulated for calculating the final level of permitted agricultural exports is 1986-1990, but individual exporters can if they wish adopt a base period of 1990-1992. This apparently technical detail will substantially raise the base year figure for both the US and the EU, thereby increasing the volume of permitted export subsidies. The effect is to provide a reward for past dumping activity, and a guarantee that such activity will continue into the future. Against this background it should come as no surprise that both the EU and the US claimed to have already met their Uruguay Round commitments in advance of signing the treaty. Any reduction in subsidy levels during the present year will result from a decline in export subsidies, rather than from a structural reform in northern farm policies or the Uruguay Round.

**The Myth of ‘Decoupling’**

Contrary to the claims of the US and the EU, linkage between direct payments and production is built into the formulae used to determine income transfers. In the EU (as in the US), these are based
on land holding size and average yields. Since land is a productive asset, it is in practice a substitute for output-related payments; and the inclusion of yields per acre in determining payments gives farmers an obvious incentive to raise these to the maximum possible levels in order to maximise future subsidies. According to one estimate from the authoritative Agra-Europe journal, the effect of direct payments will be to raise overall EU cereals output some 30m tons above what it would be in the absence of such payments.\textsuperscript{44} That is equivalent to around three-times the EU's 1994 exports of cereals.

It is true that, under the new regime, one of the eligibility criteria for farmers to receive direct payments is the diversion of land from production, or land set-aside. But, experience in the EU so far confirms evidence from the US that this is a highly inefficient means of restricting output. The 15 per cent set-aside introduced by the EU in 1993/1994 reduced output by only around 2 per cent, unsurprisingly since farmers tend to remove their most marginal land from cultivation. More recently, the EU has diluted its set-aside arrangements to remove a requirement that farmers rotate the land area taken out of cultivation—an arrangement which was introduced to ensure that all land, rather than just the most marginal, was removed from production over time.

Another form of direct payment which has an important effect on the production and marketing of cereals is the US's crop insurance schemes, which currently run at around $2bn annually.\textsuperscript{45} Policy makers increasingly see these schemes as an alternative to price support, suggesting that they will increase in importance. In addition, a wide range of export credit and food aid programmes, notably the US Export Enhancement Programme, remain intact following the Uruguay Round agreement.

There is nothing new in multilateral trade rules being written to
accommodate the strategic interests of the US and the EU. In fact, the entire history of agriculture in the GATT has reflected this tendency. What is important about the most recent performance of intellectual gymnastics is that the term "subsidy" has been redefined to allow for continued support to levels of production massively in excess of domestic demand, and for the dumping of those surpluses on world markets. Under the new regime what were previously counted as export subsidies will now count as 'direct payments', which will not be subject to WTO disciplines. In other words, the exports of wheat and maize that find their way into liberalised Third World markets will continue to carry subsidies on a scale which makes any concept of a competitive free market meaningless.

**Market implications**

The outcome of the various loopholes built into the GATT agreement is reflected in the wide range of assessments of the Uruguay Round, which predict marginal changes in cereals prices. The FAO’s econometric modeling exercise to gauge the price effects of the Uruguay Round concludes that world cereals prices will rise by no more than 7 per cent for wheat and 4 per cent for maize, millet and sorghum to the year 2000. Projections by the OECD arrive at broadly similar conclusions. The results of the OECD’s efforts to evaluate the impact of a 30 per cent reduction in subsidies, which is considerably more than will be implemented under the Uruguay Round, pointed to a small decline in wheat prices and a 2.3 per cent rise in cereal grain prices by 2002.

Against this background, Malthusian warnings about long-term shortages deserve to be treated with caution. While price increases will impose severe strains on developing country importers in the short-term, the structural over-capacity of northern farm systems
remains intact. The elimination of set-aside requirements in the US and the withdrawal of the Conservation Reserve Programme, which is a major objective for US agribusiness interests, will reinforce this over-capacity. All of which helps to explain why, in its most recent review of agricultural markets, the OECD concluded that while the Uruguay Round would result in a redistribution of world market shares production levels would make it possible to meet import demands without a sustained rise in prices: "the supply potential of cereals in major producing countries seems large enough to limit any sustained increase in real prices." Stated differently, producers in developing countries will continue to operate in markets characterised by over-supply, with attendant threats to efforts aimed at enhancing self-sufficiency.

FIGURE 3: OECD CEREALS EXPORTS AND MARKET PROJECTIONS FOR THE US AND EU TO 2000

Source: OECD
Before concluding this section, one important point needs to be stressed in relation to the subsidisation of northern agriculture. Impressions of a pampered farm sector do not accurately reflect the real beneficiaries of present forms of subsidised intervention. Because these reward output, the bulk of financial transfers go to the biggest farmers. Powerful agro-industrial concerns, supplying the capital intensive sectors of agriculture, also flourish from the artificial markets generated by guaranteed prices. The same cannot be said of the vast majority of smallholder producers, who are being bankrupted in record numbers across Europe and North America.

Over a very long period of more than three decades, average incomes in agriculture have stagnated or declined, with farm gate terms of trade deteriorating, as input prices rise relative to output prices. Thus while the costs of the CAP tripled in the 1980s, average real farm incomes remained static. Given that the size of the economically active population in farming fell by half between 1980 and 1987 alone, this is a striking situation. The largest farms have counteracted the resulting income pressures by raising productivity and output volumes at a faster rate than relative prices are deteriorating. They have been able to do so, in part, by converting access to subsidies into more capital intensive forms of production.

In EU, the largest 25 per cent of farms receive around 75 per cent of CAP subsidies. But smaller farms, unable to exploit increasing economies of scale, have been driven out of business, with the result that, across Europe and North America, farms holdings have become more concentrated. In the US, average farm size has increased from 120 hectares in 1960 to over 180 hectares today - and the trend is accelerating. Since price cuts have the effect of displacing smallholders and leading to more concentrated patterns
of landholding, the cycle of declining farm numbers and rising output becomes self-perpetuating. Another casualty of subsidised industrial farming is the environment, which has been ravaged in the drive to maximise productivity and output through monocultural practices. These issues are considered in Annex 1 and 2.
The relentless expansion of food exports from the industrialised world has played an important role in restructuring Third World food systems, with imported cereals meeting a growing proportion of local demand for both human food and animal feedstuffs. Agricultural over-production and food dumping, has been one factor in creating the policy environment for Third World food dependence. But, there has been a lethal interaction between policies designed around the interests of agribusiness in the North and 'cheap food' policies pursued by elites in the South. Over-valued exchange rates have played a central part in shifting the relative prices of locally produced and imported foodstuffs in favour of the latter. So, too, have wider development strategies aimed at securing access to cheap food in order to depress wage costs and accelerate industrialisation. By dampening local food prices, subsidised imports have provided governments with the means to pursue an industrial bias in their domestic pricing policies, effectively turning the terms of trade against the smallholder food staple sector. Rapid urbanisation and the
westernisation of diets towards wheat-based bread and processed foodstuffs has reinforced the trend towards importation, as has the use of advertising to effect shifts in consumption patterns.

**CULTIVATING FOOD DEPENDENCE IN AFRICA**

**The Sahel**

To a greater or lesser extent, the loss of self-reliance in basic foodstuffs has been observable across the developing world, especially in sub-Saharan Africa. The Sahel had been one of the most affected regions. The coarse grain agriculture (millet, sorghum and maize) which accounts for three-quarters of the cultivated area has been in decline since independence three decades ago.\(^5^2\) Over the same period, imports of rice and wheat from Europe, Asia and North America have increased at rates of over 10 per cent a year. As a result, consumption per capita of coarse grains decreased over the period 1960-1983 by 22kg, while that of rice and wheat increased by 16kg.\(^5^3\) During this period, population size doubled, while the urban population more than quintupled. Meanwhile, production of coarse grains has fallen by over 1 per cent per annum in per capita terms.

Relative prices for imports and locally produced cereals have been the most important factor behind the substitution of imports for local produce. Evidence for the 1970s and early 1980s is conclusive that governments in West Africa have kept rice and wheat cheap relative to domestically produced grains. While average world price ratios of milled rice to sorghum were roughly 3:1, typical West African ratios were between 1.3 and 2.3:1.\(^5^4\) Price ratios between wheat flour and maize meal were similarly distorted. These price discrepancies were the result of policies to subsidise urban...
consumption through over-valued exchange rates and northern subsidies. While comparative data for the 1980s is lacking, the intense food dumping competition of the mid-1980s almost certainly further lowered the costs of imports relative to local production.

Similar processes have been observed elsewhere in sub-Saharan Africa. In the Sudan, the real price of wheat-based bread relative to the main substitute, sorghum-based kisra, more than halved between 1970 and 1985. This contributed to a tripling of wheat consumption during the period, reinforcing import dependence in the local food system. The US supplied over half of wheat imports under its PL 480 programme. By 1987, 93 per cent of marketed wheat was imported, 85 per cent of it in the form of food aid. There is a broad consensus that wheat dependence is one of the central sources of food insecurity in the Sudan.

**Nigeria's Wheat Trap**

The interaction of domestic and international factors in eroding food self-sufficiency is graphically illustrated in the case of Nigeria. Basically self-sufficient until the late 1960s, after 1970 wheat imports flooded into the country at a rate of increase in excess of 20 per cent per annum. By 1980, Nigeria was a major international importer of wheat, purchasing around one-and-a-half million tons annually. During this transition, production of yams, cassava, millet and guinea corn fell dramatically.

The processes behind the trend towards food dependence have been researched in some detail, and the analysis raises policy considerations of far relevance to other regions. Most importantly, the massive food imports of the 1970s and 1980s are evidence not of a growing gap between domestic productive capacity and need, but of local markets being restructured in a manner which favoured
imports. Rapid inflation at home had the effect both of creating import demand and eroding the prices received by local food producers. If imports had been restricted, domestic food prices would have increased. This in turn would have slowed migration to the towns and increased rural purchasing power - outcomes which ran contrary to the Nigerian government’s industrialisation strategy. Instead, markets were kept open, while the international purchasing power of the naira, protected by petroleum exports, facilitated the importation of wheat at levels which prevented domestic food prices from rising, trapping local producers in a downward spiral.

As one study puts it: “Nigeria is unable to feed herself not because of the backwardness of her producers or their lack of commercial orientation. Their markets have been undercut by policies which have favoured imports.”57 The same study goes on to document the role of commercial interests in the US and Nigeria in fostering market demand for imported wheat through the development of a processing industry and the cultivation of new consumer tastes. Many of the same processes have been documented for countries in Latin America and Asia, where the loss of food self-sufficiency in basic staples has also been in evidence, albeit in less extreme form than for sub-Saharan Africa.

DANGERS OF FOOD DEPENDENCY IN THE PACIFIC RIM

Traditionally, concern about the loss of food self-sufficiency has been focused upon sub-Saharan Africa. Looking to the future, other regions are now facing acute threats which, in some cases, have yet to register politically. Those threats are especially pronounced in the Pacific Rim region, where a combination of unilateral initiatives, commitments under the Uruguay Round agreement, and bilateral
trade pressure is gradually opening up markets. Particularly important in the latter context, is the fact that the Pacific Rim has become a focal point of US efforts to expand export outlets.

It is not difficult to see why. The region already accounts for about 40 per cent of US farm exports. Moreover, agricultural trade is one of the few areas in which the US retains a positive trade balance, amounting to around $13bn annually. Even for China, which has a massive $29bn surplus in its trade with the US, farm trade remains marginally positive. Given the vital importance of the agricultural surplus to the US economy, it would be a mistake to under-estimate the central role of the Pacific Rim in America's strategic vision for the future.

That vision includes a massive expansion of exports to the year 2000. USDA estimates suggest that two-thirds of the global increase anticipated for farm exports will take place in the region. Translated into financial terms, this represents an increase in export earnings of some $14bn by the year 2000, when it is envisaged that the Pacific Rim will absorb two-thirds of all US agricultural exports. Of this sum, an estimated $3bn will derive from market openings resulting from Uruguay round agreement.

There are two overlapping elements in the strategy to achieve this target, namely:

- increased penetration of higher-value-added meat, poultry, dairy and processed food markets in Japan, South Korea and Taiwan. Broadly, this implies the conversion of US soya and maize into meat protein at home, thereby maximising the retention of value-added

- the expansion of bulk markets for wheat and maize, with the Philippines and, to a lesser extent, Indonesia and Malaysia, the major targets.
MARKETS FOR WHEAT

With regard to the second of these markets, future strategies will be building upon past achievements. In 1989, a report on wheat by the OECD observed of the Philippines and Indonesia that: "Given the low per capita incomes and the preference in urban areas for wheat over rice, there is considerable potential for increasing wheat exports to these markets." Changing dietary patterns in favour of wheat-based fast food, the expansion of modern supermarket chains linked to suppliers in the US, rapid growth, and an increase in demand for animal feeds, all point towards an increase in cereals imports, as witnessed by recent experience. Ignoring year-to-year variations caused by adjustments in South Korea, some five million tons in additional trade has been created since 1989/1990. The largest gain, about 2 million tons, has been for Indonesia, although wheat imports have also expanded at a prolific rate in Malaysia and the Philippines (see Figure 4). The Philippines, it should be added, is regarded with some justification by US farm policy planners as a captive market, since over 90 per cent of wheat imports into the country originate in the US. By contrast, rival exporters—notably Australia and Canada—have established market domination in Indonesia and Malaysia, where the US currently supplies only around 10 per cent of imports.

US agricultural policy documents stress the important price advantages enjoyed by wheat over locally produced staples in South-East Asia—an advantage commonly attributed to comparative advantage. At risk of understatement, this assessment is difficult to square with the facts. Even the most cursory consideration of the US subsidy structure considered above (and presented below in graphic form) should be enough to disabuse the most hardened neo-classical economist that market prices in this
context reflect relative efficiency. As Figure 5 illustrates, the average subsidy per farmer in the US amounts to over twenty-times the average income for the Philippines, making any pretense of a level playing field difficult to justify.

Impressive as they are, overall subsidy levels on imports do not capture the intensity of the competition which is developing in local food markets. While it is true that relative prices moved sharply in favour of US wheat since the mid-1980s, this has been largely a consequence of aggressive subsidisation. Between 1992 and 1994, the Export Enhancement Programme (EEP) provided over $1bn for sales of wheat to Asia. In total, wheat accounted for over 90 per cent of all EEP transfers to the region, which in turn absorbed one-half of all wheat exports carrying EEP bonuses. The two major US export credit programmes (GSM 102, which covers credit costs for up to three years, and GSM 103, a parallel facility providing cover for up to ten years) have also been extensively deployed.
Creating a food dependency: the Philippines

The experience of the Philippines illustrates the scale of export subsidiation involved. Country analysis reports by the US Department of Agriculture have identified the previously protected staple food sectors of the Philippines as potentially important areas of market penetration. Inadequate infrastructural investment is seen as central to the competitive position of the US. To quote one recent USDA report:

"In the absence of sustained, aggressive investment in infrastructure and increased competitiveness for corn production, the Philippines could become a regular corn importer by the end of the decade...Because Thailand and China’s corn surpluses are likely to diminish in the 1990s, US corn may be able to capture a large share of this growing market."
Given that the Philippines government's agricultural modernisation plans envisage a transfer of resources away from the staple food sector, this optimistic scenario, from the USDA perspective, is likely to be realised. The winners will be the major grain exporting corporations, who control maize exports from the US and have a major stake in the maize processing sector in the Philippines. This helps to explain the active role of the Cargill corporation in pressing the US government to use trade pressure as a means of opening up the Philippines market. The losers will be the smallholder maize producers whose livelihoods will be destroyed by cheap imports.

Unequal competition between farmers in the US and the Philippines has been reinforced by export subsidisation aimed at expanding wheat consumption. In 1991, the Philippines imported 1.2m tons of wheat from the US, almost all of it under the EEP. That wheat was sold to the Philippines at $96/t. Meanwhile, the EEP bonus attached to these imports amounted to $40/t, and the US farmers who produced them received deficiency payments of $77/t. Stated differently, for every $1 worth of wheat imports purchased by the Philippines, the US government provided subsidies equivalent to slightly under $1.67 Were the US electronic industry to be subjected to similar levels of subsidised competition, it would doubtless be difficult for the judiciary to deal with the flood of 'anti-dumping' suits which would follow. But in matters of farm policy, different rules apply. Indeed, the differences are celebrated as an ultimate triumph of the market. To quote a 1995 Agricultural Situation report from the US Embassy in Manila:

"Wheat is not an indigenous crop to the Philippines, nor is it currently viable as a commercial crop. However, wheat plays an increasingly important role in the Philippines grain market and is gaining on rice as a staple in the urban diet...Since 1986, the EEP
has been an important tool in maintaining this traditional market for US wheat against subsidised competition.68"

It appears to have escaped the notice of the report's author that the only subsidised competition in wheat during the year in question came from Saudi Arabia, which—whatever the strength of the political forces that guide the Kingdom to grow wheat at ten-times the world market price—is unlikely to threaten the US's global market dominance. Notwithstanding the obtrusive nature of market realities in the Philippines, the report goes on to welcome the steep rise in consumer demand for bread roll, pizzas, donuts and pasta facilitated by the EEP.69 The question of whether financing the western dietary patterns of the middle-class is the most appropriate use of the country's scarce foreign exchange, is not addressed.

Neither is the more serious question of whether the food imports now flooding into the Philippines are damaging food security in a more fundamental sense. According to the most recent (1993) National Nutrition Survey, the average intake of grams provided by rice has fallen by 5 per cent since 1993. At the same time, per capita production of maize and rice has stagnated or perhaps even declined since the mid-1980s. Structural deficits in rice—amounting to 800,000 tons over the past five years—now appear to be a fact of life.70 The role of food imports in generating these deficits by depressing production and investment on the part of local producers has yet to be explored. It may well be that causal connections will be difficult to establish. However, there is strong prima facie evidence of a negative correlation between rising imports and diminished self-sufficiency.

In contrast to many other developing regions, the Asean countries have set considerable store by protecting their food self-sufficiency.
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That strategy has been justified by social as well as economic considerations. However, as economic growth gathers pace and moves towards agricultural liberalisation gather impetus, there is a growing danger that the region will become increasingly dependent upon imports, with potentially adverse consequences for rural livelihoods.

While the experience of sub-Saharan Africa differs from that of the Asean countries in many obvious respects, it is worth recalling that some three decades ago that region too was largely self-sufficient. Moreover, many of the same forces which generated food dependence are in evidence in Asia today. Governments committed to 'cheap food' for growing urban populations, escalating currency valuations which give a relative advantage to imports, inadequate investment in infrastructure for staple food production, and a commitment to priority investment in export-oriented agriculture and industry are all features of the Asean horizon. Moreover, Asean and the Asian Pacific Economic Cooperation group are moving headlong into increasingly radical trade liberalisation initiatives, against which even the Uruguay Round will pale into insignificance. Were these initiatives extended to agriculture, they would exacerbate the pressures on local agriculture, reinforcing the loss of self-sufficiency in some countries in the process.

More immediately, the Uruguay Round agreement will contribute to wider forces integrating food staple producers in Asean and elsewhere into world markets. Minimum access provisions and tariff reductions will expand imports of rice into Indonesia and Malaysia, and of maize in the Philippines. Moreover, the US can be expected to use the WTO as an instrument for prising open food markets, much as it has done in financial services and hi-technology goods. The threat of GATT-sponsored sanctions was instrumental
in persuading South Korea to open its beef market in 1990, since when the country has moved from self-sufficiency to 53 per cent import dependence. Similar actions cannot be ruled out against governments, especially should they start to renege on Uruguay Round commitments to reduce import barriers and withdraw price support measures.

IMPLICATION OF THE URUGUAY ROUND AGREEMENT FOR DEVELOPING COUNTRIES

An important question for governments in south-east Asia and Latin America is whether or not the Uruguay Round will hamper efforts to increase food self-sufficiency. The answer to this question is an unequivocal 'yes'. Indeed, from a US perspective, this is one of the central purposes of the agreement.

The GATT agreement on agriculture makes a number of special provisions for developing countries. Most important among these are provisions which stipulate that:

- subsidy reduction commitments will be equivalent to two-thirds of the level required of developed countries;
- countries with subsidy equivalents of less than 10 per cent will be exempt from reduction commitments;
- least developed countries will be entitled to full exemption, although they will be required to bind their tariffs.

An obvious concern with these provisions is their asymmetry. In the industrialised countries, farm subsidies typically amount to over $170bn. By comparison, even those developing country governments which do attempt to protect local prices do so on an infinitely smaller scale. All of which raises the question as to why developing countries should be required to start liberalising until
the industrialised countries first reduce their subsidies to a comparable level.

Moreover, in contrast to northern governments, most developing countries lack the resources to protect rural incomes. In the OECD countries, primary agricultural production typically accounts for less than 5 per cent of employment, making direct payments from the budget a viable means of income support. By contrast, in most developing countries agriculture accounts for well over half of employment (and more than three-quarters in the least developed countries), while budgetary resources are highly restricted by poverty. Even in Mexico, where agriculture now accounts for only around 8 per cent of national income, it represents over one-quarter of employment. To suggest, as the Uruguay Round agreement does, that these governments should rely on direct payments to rural producers as the primary mechanism for income support is to fly in the face of reality.

Quite apart from these considerations, there are sound social and strategic reasons for protecting national food systems in the interests of creating rural employment, reducing poverty, promoting environmental sustainability, and ensuring a predictable supply of food staples at affordable prices. These reasons are hardly diminished by comparative advantage arguments which start out by ignoring the market distortions caused by northern subsidies—and by rejecting the divergent purposes and effects of different types of subsidies.

THE CASE FOR PROTECTION

Efforts to develop an alternative framework were initiated during the Uruguay Round by the Government of Jamaica, which drew a simple but important distinction between the aims of subsidisation in the North and in the South:
“Subsidies which distort trade need to be disciplined...but...in those parts of the world where there is no production or under-production, we believe it is an obligation to encourage production at the national level...We do not believe that this is the same thing as using subsidies which increase self-sufficiency ratios beyond the level which meets domestic consumption requirements and which are used to increase both production and exports”

It could be argued that this approach suffers from a serious contradiction, in that any subsidy which influences self-sufficiency inevitably has an effect upon trade. However, while it is difficult to escape the fact that this logical tension pervades the argument, it can hardly be compared with the intellectual gymnastics performed by the EU and the US in contriving their definition of a ‘non-distorting’ subsidy. The difference, of course, is that the Uruguay Round agricultural agreement was written by the US and the EU, and not by the Jamaican Government.

Perhaps a more serious problem with the Uruguay Round agreement concerns the thorny issue of national sovereignty. Throughout their recent histories, both the US and the EU have refused to expose their agricultural systems to unregulated market forces. The experience of the Dust Bowl in the US and of post-war food shortages in Europe led to a consensus that the protection of rural livelihoods and food security were too important to be left to the market. There was also a recognition, which extended beyond agriculture, that unregulated markets had an in-built tendency to result in chaos, social dislocation and, equally fundamentally, economic inefficiency. Against this background there is something deeply disturbing about a multilateral trading system which denies to developing countries the right to deploy policy instruments in defense of their food security which, until recently, were regarded
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by the US and the EU as matters of absolute sovereignty.

Whatever its shortcomings, the Jamaican proposal could have formed a rallying point for opposition to the efforts of the US and Australia to work for global market deregulation. Countries such as the Philippines, Malaysia and Indonesia, or, more accurately, staple food producers in those countries, share a common interest in retaining the right to protect their food systems. Instead, their governments opted to place the perceived interests of commercial exporters and expanded trade above those of food security. Throughout the Uruguay Round they distinguished themselves by playing the role of extras in a play scripted by Washington and Canberra.

Other countries, such as the major food importers of North Africa saw the main threat posed by the Uruguay Round as that of higher world prices. Having assiduously pursued food dependent development strategies, several of these countries—including Egypt and Algeria—now find themselves dependent on world markets to supply over half of their basic cereals consumption. The real challenge facing the North African countries is to reduce their dependence on EU and US surpluses to more sustainable levels by rehabilitating smallholder agriculture. Instead, they used the Uruguay Round to press for special arrangements to subsidise their imports in the event of a world price rise. In this they were assisted by the FAO, which assisted in the negotiation of a separate text which notes the possible negative effects of the Uruguay Round agreement and allows for support to net food importing countries.73

It is questionable whether or not this agreement will, under any circumstances, carry any real weight. The FAO’s Committee on Surplus Disposal has only an advisory function, which is fortuitous in that it has done little more in its history than rubber-stamp US
surplus dumping programmes. The deeper fallacy in the approach of net food importing countries is that whether world prices rise, fall, or remain stable, the Uruguay Round agreement will have little influence for reasons we have already discussed.
Food Trade and Food Security

For many years now a debate has raged between those who argue that increased food self-sufficiency is vital and those who maintain, to the contrary, that a loss of self reliance does not constitute a food security threat. The arguments of the latter are often stated in broader comparative advantage terms. Where production for export would generate sufficient foreign exchange to import more food than could be produced locally, so the argument runs, efficiency and food security will both be enhanced by directing investment resources in this direction. In this scenario, the production of export crops to finance the import of food crops represents a perfectly coherent food security strategy. Theoretically, this is a reasonable enough argument. Equally reasonable is the World Bank’s cautionary note that “policies directed towards national self-sufficiency in food do not necessarily reduce chronic food insecurity.” This is evident in a country such as Zimbabwe, where national food self-reliance has been achieved in a food system in which around 40 per cent of the population are malnourished, and where child stunting is widely prevalent.

The problem with applying comparative advantage arguments to matters of food trade is rooted partly in economic theory; and partly
in distributional factors which go to the heart of food security debates. Where markets are distorted by subsidies, prices do not carry the information about the allocation of scarce resources which is suggested in neo-classical economics. For this reason, they provide a highly misleading indicator of relative efficiency, even before the question of environmental accounting is brought into the frame. There are also wider questions about the time-frame in which comparative advantage is considered. The fact that the relative prices of exports and food imports may point toward a comparative advantage in imports in one year, is no guarantee that this advantage will remain intact in future years—a fact which the recent surge in world food prices has underlined for many countries. The security of access to foreign exchange, is a further important dimension often left unconsidered.

Even so, it can be argued that, other things being equal, it is perfectly reasonable for countries to take advantage of artificially depressed prices in the interests of economic efficiency. The difficulty here is that other things, notably the distribution of income and land, are not equal and that the deeper failure of market-based approaches to food security is rooted in their inability to capture the distributional, environmental and wider economic effects.

IMPORT SUSTAINABILITY AND SMALLHOLDER PRODUCTION

THE CASE FOR SELF-RELIANCE

Foreign exchange availability is a paramount consideration in any discussion of food security. In the case of the Sahel, imports of crop and livestock products accounted for half of the regional current account deficit in 1989.\(^5\) For the least-developed countries as a group, food imports now absorb over one-third of export earnings
—considerably more than the burden imposed by foreign debt repayments.\textsuperscript{76}

As has been pointed out elsewhere, the proportion of foreign exchange earnings dedicated to food imports is not, in itself, a meaningful food security indicator. Neither is the overall level of food import dependence. Hong Kong is highly dependent upon food imports, as is South Korea. Yet autarchy would not necessarily increase overall food availability, since neither country faces a serious foreign exchange constraint. This points to the importance of wider questions about export structure and performance. Where countries have highly diversified export bases, export products with a relatively high value-added content, are not dependent upon a narrow range of commodity exports for which markets are volatile and subject to cyclical depression, and where foreign debt does not threaten financial chaos, it is perfectly possible to maintain high levels of import dependence.

Unfortunately, these conditions do not apply to the vast majority of the world's poorest countries. The simple fact is that many of the one-hundred or so food deficit countries are not in a position to sustain food imports at current levels. This applies not just to low-income countries, but also to countries such as Mexico and the Philippines, where large debt stocks and persistent balance-of-payments problems remain a source of instability. In Egypt, where about two-thirds of human cereals consumption is supplied by a combination of US aid and commercial imports, food security is dependent critically upon external factors, notably good relations with the US government.\textsuperscript{77} Food imports account for about one-quarter of Egypt's merchandise imports, which is higher than for all of the world's middle-income countries and high income countries.
For the poorest developing countries, the diversion of scarce foreign exchange resources to import goods which could be efficiently substituted for by local farmers, represents a high level of waste: the same resources could be used to finance the imports of goods which cannot be efficiently produced locally, but which are vital to long-term development and employment creation. Nigeria may not be in a position to locally manufacture machine tools, but its peasant farmers are more than capable, under the appropriate policy conditions, of feeding the country.

The chronic insecurity generated by food import dependence in the world’s poorest countries has become a focus of attention for governments. Alarm over the loss of self-reliance in the Sahel has prompted efforts to revive regional approaches to food security, including an integrated strategy for cereals protection. More broadly, the Economic Commission for Africa has consistently called for improved food self-sufficiency as the first step towards recovery in sub-Saharan Africa. As the Commission’s 1989 African Alternative Framework put it:

"Africa’s viability resides, above all other considerations, in its being able to feed its own people from its internal resources...It is therefore important to ensure a realignment of consumption patterns with production capability. If the consumption habits of the African people remain principally based on food commodities that cannot be produced within the region, then Africa’s food self-sufficiency will remain unfeasible."

RURAL AND URBAN LINKAGES

In sub-Saharan Africa, concern has focused upon the unsustainability of food imports in the face of deepening trade and financial constraints. Large urban population are particularly
vulnerable to reductions in imports, especially where wheat-based bread and rice have become staple food for low-income groups, as they have in West Africa and North Africa. But the loss of food self-reliance raises issues which go beyond national import capacity to the household level. Where imports undermine local markets, they also undermine household incomes, investment in agriculture and rural employment, leaving communities increasingly dependent upon labour markets for their survival.

There is an important interaction here between urban and rural food insecurity, which is often overlooked because of a paradigm which focuses upon the separate, and potentially competing, interests of urban populations in cheap food, and rural populations in high prices. Reality is more prosaic. The rural poor are generally net purchasers of food, and their vulnerability to rising prices has been extensively documented both in Asia and Africa. For the urban poor, there is an important trade-off between the cheapness of food and the security of supply. Where food systems have become unsustainably dependent upon imports and the capacity of local agriculture to meet domestic needs has been eroded, the availability of cheap imports is not a stable basis for food security.

That is why, in most of Asia, Africa and Latin America, improving food security requires both increasing the purchasing power of the poor, and an increase in overall food production. Increased output, especially in the smallholder sector, is vital both in terms of creating rural income and employment, and in terms of ensuring stable and secure supplies to vulnerable populations.79

THE COSTS OF LIBERALISATION

This approach suggests a two-tier strategy to enhance food security, embracing measures to enhance the productive capacity of small-
holder agriculture while increasing the purchasing power of the poor. By contrast, trade liberalisation measures are rationalised by a concern to address one element in the food security equation: namely, reducing the price of food and agricultural inputs. The damaging implications of this imbalance is already evident in a number of countries, including Mexico and the Philippines. In Mexico, implementation of the North American Free Trade Agreement, is exposing local producers to increasingly intense competition from US agriculture. Restrictions on wheat and rice will be phased out by 2003, and access to the previously highly-protected maize market is being increased through an expansion of import quotas and reduction of tariffs.

Viewed from a market perspective, increased food exports have depressed food prices. Many economists regard this as positive, since it might be expected to raise investment levels by reducing wage costs. On the other side of the equation, liberalised access for imported maize in the Mexican market poses a major threat to the livelihoods of about 2.4 million maize producers and their families. The majority of smallholder producers in Mexico operate in rain-fed areas, often on ecologically fragile hillsides, where average yields are around one-quarter of the level in the US. Increased pressure on these smallholders will accelerate the adoption of survival strategies, including out-migration from household farms to commercial agricultural areas, urban centres and the US. Increased reliance on seasonal labour markets for male workers and female labour on household farms will also be reinforced. Inevitably, the transfer of labour will reduce the productive capacity of smallholder farms, reduce the scope for labour-intensive ecologically sustainable farm practices and increase the vulnerability in Mexico’s rural areas, where half the population already live below the poverty line.
Similar processes are in prospect for the Philippines, where the government’s Medium-Term Agricultural Plan envisages a combination of rapid liberalisation and a concentration of investment resources in the more commercially advanced areas and exportable crops. The overarching aim is to reduce by half the area planted to the two main food staples of rice and corn. Partly in an effort to maintain food supplies and control inflation, restrictions on food imports are being withdrawn. Liberalisation of wheat began under the country’s structural adjustment programme with the World Bank in 1987, when the government opened trade to the private sector, and import restrictions are now negligible. More recently, as part of its commitment under the Uruguay Round agreement, the national import quota for maize is being increased from 135,000 tons to 216,000, while tariffs are scheduled to fall.82

As in Mexico, the results are potentially disastrous for smallholder producers. Maize is the second most important food crop in the Philippines after rice, accounting for about 2 million livelihoods and one-fifth of staple food consumption.83 Because of a combination of poor infrastructure and high marketing costs, locally produced maize is not competitive with imports from the US and Thailand, so that any move towards free trade will carry a high price in terms of lost livelihoods in the main maize producing areas of Mindanao and the Cagayan Valley. These are among the poorest regions in the Philippines, with poverty levels in excess of 40 per cent.84

DISTRIBUTIONAL CONSIDERATIONS IN TRADE EXPANSION

Central to the debate over trade and food security since the conclusion of the Uruguay Round has been the question of how liberalisation will influence world market trends and export
prospects. An endless stream of market projections, drawing upon divergent methodologies, have attempted to capture the likely outcomes, and they have produced a diverse range of findings. Most point to positive outcomes for tropical commodity exports, albeit with significant regional variations. The main beneficiaries, according to a consensus in the projections, will be Latin America and the Asean countries, for whom exports are expected to increase by around $150m, while sub-Saharan Africa is expected to suffer a loss in export earning as its trade preferences are diluted. According to the FAO, export growth resulting from the Uruguay round will improve the overall agricultural trade balance of developing countries to the extent of around $3bn by the year 2000.

Other studies reach less optimistic conclusions, pointing out that tariffs will remain exceptionally high for the fruit and vegetable products which many developing countries have built their export-growth strategies around, and that tariff escalation, or the imposition of higher duties on processed goods, will remain pronounced. The wide array of safeguard and anti-dumping provisions left in the Uruguay Round agreement could also reduce projected benefits. In reality, projections about the impact of the agreement are little more than educated guesswork, despite efforts by their architects to raise speculation to the status of scientific fact. But more important than the quantitative aspect of these projections has been their influence in shaping approaches to food security.

In particular, the promise of significantly improved agricultural trade balances and commercial export prospects has prompted a number of developing countries to accelerate the liberalisation of food markets in the hope of enhanced access to markets overseas. In the cases of Mexico and the Philippines, which are considered in more detail below, governments have acknowledged that import
liberalisation will result in a loss of livelihoods in the staple food sector, while creating net foreign exchange gains as exports take off. The assumption is that these gains will translate into employment opportunities, absorbing any labour displacement resulting from competition with imports.

WINNERS AND LOSERS IN EXPORT PRODUCTION

The difficulty with this approach is that it raises issues which can only be addressed on a case-by-case basis. Encouraging export crops may generate foreign exchange; and it may represent the most efficient use of labour and investment in narrowly-defined economic terms. But it may also result in a concentration of public and private investment on richer regions and the most commercially advanced producers.

Another possible effect is that smallholder producers will be displaced to make way for large commercial estates, while mechanisation reduces the demand for labour. In some cases, an increase in export activity may bring new opportunities for smallholder producers. In others, however, smallholders may be excluded. Research by the World Bank in Kenya has shown that high rates of initial entry into the production of fruit and flowers was followed by high drop-out rates, with most unable to afford access to inputs.

Where production of commercial export crops is dominated by large-scale producers and foreign transnational companies, it is they, rather than the rural poor, who will receive the bulk of the benefits from trade expansion. Since transnational company control over production and marketing is becoming increasingly pronounced in many countries, not least because these companies are often gatekeepers to markets in the North where they have access to the major retail outlets, this is an important consideration. Over
one-half of fruit exports from Chile are controlled by five transnational companies. In many cases, corporate central results net only in the exclusion of poorer producers from markets and a skewed distribution of export income; but also a high rate of profit transfer to the industrialised world.

The commercialisation of production may also result in women losing control over cash income, facing increased labour demands, and being denied access to their previous household food supply. It must be stressed that none of these are necessary effects of export crop production, and that the distinctions drawn between food crops and commercial crops are, in many cases, meaningless, since food crops are also sold into markets. The important point, however, is that food security implications simply cannot be extrapolated from general arguments about the relative efficiency of markets, especially in the absence of a more detailed analysis of specific effects.

An example of the significance of distributional considerations is provided by Central America, where commercial agricultural exports are financed relatively high per capita imports of basic food staples. Countries such as El Salvador, Honduras and Mexico import over one-quarter of cereals consumption requirements. One recent study has estimated that commercial crops such as beef, coffee and sugar account for as little as 7 per cent of the gross income on farms of under 5 hectares, where food security problems are most intense. By contrast, these farms account for about one-half of gross income from the major food staples of corn, rice and beans. This suggests that while an export led strategy based upon existing patterns of resource allocation may generate increased foreign exchange earnings, these will be concentrated in the hands of higher income groups for whom food security is not a problem.
'Flexible' Employment

Employment creation is an important and, from a food security perspective, potentially beneficial aspect of export production. Even here, however, the picture is more mixed than is sometimes assumed. In Chile, specialised production of fruit for markets in North America and Europe, has emerged as an important source of foreign exchange, accounting for 13 per cent of total earnings in 1993. From 1974 to 1990, exports of fresh fruit grew at 25 per cent each year. Today, Chile is the main supplier of temperate fruits to northern markets.88 These exports have enabled Chile to expand imports of food without serious balance-of-payments problems. They have also created a significant amount of employment, estimated at around half-a-million jobs.

For the World Bank, all of this adds up to a success story to be duplicated in other countries. But behind the impressive foreign exchange gains, employment growth has gone hand-in-hand with a marked increase in temporary, often seasonal, wage employment. Over two-thirds of the labour force in Chile is now employed on a temporary basis (compared to one-third in 1980), and some 60 per cent of these workers are in the fruit sector.89 Many of these labourers are displaced smallholders who were evicted from plots in Chile's central valley region to make way for commercial producers. Casual employment practices are widespread. Temporary workers are generally paid piece rates, are not entitled to social security benefits—such as sickness and maternity payments—and have no employment protection or basic trade union rights.90

The resulting problems are especially acute for women, who account for a growing proportion of the commercial farm labour force. In Mexico, women are now estimated to account for between one-third and one-half of the wage labour force in agriculture, with
100,000 involved in producing strawberries for the North American market.\(^91\) In Colombia, over 70 per cent of the labour force employed in the cultivation of flowers is female.\(^92\) One of the problems associated with export production in these sectors has been the use of dangerous chemicals and pesticides, some of which are banned in the North.\(^93\) In the absence of legislative protection, commercial advantage has been sought and obtained by placing female workers in situations of acute risk to their health.

**Environmental costs**

Viewed through a narrowly economistic lens, it could be argued that the declining value of food imports against agricultural exports in countries such as Chile and Colombia, represents a positive food security outcome. Measured in terms of human welfare, the ratio of costs and benefits is more complex, not least since the flexible labour practices upon which export success has been based have undermined household security and increased exposure to risk, household income and access to food dependent upon uncertain labour markets.

The environmental costs of trade expansion can also carry negative consequences for food security. In Central America, the conversion of land to cattle pasture during the 1970s contributed to a special and ecological disaster, as forest areas were cleared and smallholder producers displaced on to environmentally fragile hillsides.\(^94\) In Brazil, the expansion of soya production to supply the European animal feedstuffs market has had similarly adverse consequences. Since 1975, the area under soya has increased from less than 1 million to 12 million hectares.\(^95\) Large-scale mechanised production has resulted in the deforestation of the Cerrados plateau, resulting in a loss of species and soil erosion rates of over 3 tons per hectare. The development of soya exports was accompanied by the dis-
placement of smallholders producing staples such as black beans. These farmers were forced to eke out a livelihood on strips between commercial farms or along roadsides, migrate to cities, or open up new land frontiers in the Amazon region, notably in Rondonia. The result has been a vicious circle of increased household insecurity, environmental degradation, and a decline in production of basic food staples. As a food system, Brazil has performed considerably better in feeding European cows than meeting the needs of its own people.

THE CASE FOR INTERVENTION

From a food security perspective, there is clear contradiction between the headlong pursuit of trade liberalisation and the twin aim of expanding the productive capacity of smallholder producers, and maintaining a high level of food self-sufficiency. Despite this, free market arguments are commonly deployed in defense of exposing food systems to international competition. These arguments are fundamentally flawed in at least three important respects. First, and most importantly, access to food should be regarded as a basic human right, and indeed is treated as one in the relevant UN instruments. As indicated above, trade liberalisation can erode this right by reinforcing the structures which marginalise poor rural producers, distributing opportunities in favour of the better off, and creating an unsustainable dependence on imports. This suggests that the responsibilities of governments go beyond the imposition of free market edicts to the protection of a basic right of citizenship.

Second, as suggested earlier in this paper, the heavy levels of subsidisation applied to exports of wheat and maize from the dominant market suppliers in the North justify the use of protective
measures - a theme we return to below. The whole purpose of the anti-dumping clause introduced into the GATT was to prevent the distortion of markets through unfair competition; and it could be argued that protection against dumping is a pre-condition for the price mechanism to play its proper role in allocating resources.

Finally, short-run price considerations fail to capture the wider array of factors, going beyond direct export subsidisation, which determine competitive advantage in a liberalised market. In the unlikely event that northern governments were to withdraw all support for subsidised over-production, their agricultural sectors would still retain the infrastructural capacity in production and marketing built up over several decades. That capacity would have an important bearing on their competitive position.

Conversely, the absence of adequate infrastructural support for smallholders in much of the developing world is a major factor behind their inability to adapt to more liberalised markets. Transport costs are often exceptionally high, requiring investment to improve roads and delivery systems. Post-harvest storage facilities are typically inadequate, forcing producers to sell during adverse market periods and exposing them to monopolistic private sector traders. Public stock-holding policies have provided little protection in most countries, since the proportion of marketed output controlled by governments is insufficient to influence price trends. In many countries, smallholder producers are excluded from agricultural policy programmes extending credit and input support, since these typically focus on the most productive areas.

In all of these areas, public investment could play an important role in raising productivity and marketed output, and border protection from food dumping would be vital to the success of that investment. Neo-classical free trade theory would reject this approach on
efficiency grounds. However, this reflects the static approach to comparative advantage upon which that theory is based. More recent trade analysis, drawing upon the experience of the south-east Asian countries, has pointed to the vital role of governments in creating a dynamic comparative advantage through a combination of public investment and market regulation, including the regulation of imports during periods in which productive capacity is being developed. The move from heavy protection to export expansion in the textile sectors of a number of Asia countries, most recently Thailand, is an example of a more dynamic approach to comparative advantage.

Of more direct relevance to agriculture and food security, is the experience of Indonesia. Over the ten year period from the mid-1970s to mid-1980s, the country went from being the world's largest food deficit country to a position of self-sufficiency. This was a period during which per capita rice consumption increased by 30 per cent. How was this transition achieved? Partly through a price stabilisation policy operated through the intervention agency, the Bulog; and partly through public investment in irrigation and extension. While this case may not be replicable elsewhere, the fact that Indonesia achieved food self-sufficiency not through US/EU style price incentives (domestic prices remained close to world market price throughout), but through public investment aimed at releasing productive potential, underlines the importance of the state's role in creating an enabling environment.
Markets and Modernisation: Maize Crises in Mexico and the Philippines

Agriculatural modernisation strategies increasingly stress the pivotal role of the commercial, export-oriented sector. Public and private investment in the production and marketing of high-value added crops is seen as central to wider export-led growth strategies. Central to these strategies is a commitment to liberalisation, with governments seeking to achieve enhanced access to foreign markets for commercial crops in return for the withdrawal of domestic trade barriers, including those restricting access for food imports. The Uruguay Round of world trade talks and, to an increasing extent, regional trade arrangements, have given a sustained impetus towards liberalisation. This has been widely celebrated as a process which will re-order agricultural production in line with comparative advantage and technical efficiency—a perception which is difficult to square with the continued use of subsidies by the major OECD exporters.

Moreover, when liberalisation occurs in a context of extreme inequality between producers, it threatens to marginalise the rural poor and exacerbate inequalities. Particularly dramatic examples
of this process are to be found in the cases of Philippines and Mexico, which we consider below. The experience of both countries illustrate many of the problems inherent in narrow economic approaches to food security when the livelihood of a large section of the rural population are acutely vulnerable to economic pressures.

**MEXICO: THE NAFTA ROUTE TO FOOD DEPENDENCE**

In 1994, Mexico became the twenty-fifth member of the OECD, conjuring up images of a fast developing industrial economy. Such images reflect the political aspirations of the Institutional Revolutionary Party (PRI), which in 1986 negotiated the country's accession to the GATT and in 1994 took Mexico into the North American Free Trade Association (NAFTA). These developments are part of a wider transformation in economic policy, with the previously highly-protected economy being progressively opened up to market forces. Between accession to GATT and the coming into effect of NAFTA, the average tariff was reduced from over 100 per cent to 12 per cent - and it has since fallen to half of this level.\(^{100}\)

The agricultural sector has not been insulated from the liberalisation process. Since 1989, tariffs on most agricultural products have been withdrawn, along with seasonal restrictions. Initially, basic grains were exempted. However, Mexican membership of NAFTA led to a major new policy initiative in 1993, under which liberalisation was extended to the cereals sector, marking a radical new policy departure. Since the 1910 revolution, Mexico's cereals farmers have been assisted through guaranteed state price support policies provided under the food marketing parastatal (CONASUPO), which in the mid-1980s controlled about one-half of wheat and sorghum sales and one-third of maize sales.\(^{101}\) Traditionally, the
minimum floor price fixed by the state has been substantially higher than world market prices, and has been defended by tariffs and quotas. State agencies have also supported farm incomes through input subsidies and, for low-income farmers, low interest rates and tax credits to offset marketing costs. Under the new programme, all price support programmes are to be phased out over the next fifteen years, and replaced by direct cash payments under a new facility called PROCAMPO. These payments are supposed to extend to over 3 million producers, and some three-quarters of total cropland.

**Trade liberalisation: winners and losers**

Trade liberalisation is central to the reform process. Under the NAFTA regime, which has to be fully implemented by 2008, duty free import quotas for US maize have been increased to 2.5m tons, and will subsequently increase by 3 per cent a year. Mexico has established a fifteen-year transition for maize, with a tariff of 250 per cent, which gradually decreases for seven years, after which it drops sharply. The longer adjustment period is to allow Mexican farmers a 'breathing space' to increase productivity. By 2000, the duty-free quota will be 3m tons, compared to 1m tons in 1992/1993. Restrictions on wheat and rice imports are to be withdrawn in ten stages by 2003. For its part, the US has agreed to eliminate all quantitative restrictions, subject to safeguards for particularly sensitive products. These include some of Mexico's major vegetable exports, such as tomatoes, water-melons, aubergines and onions. Fresh fruit and orange juice has also been subjected to a long transition period in deference to the interests of Florida and Californian producers.

As with any process of trade liberalisation, there will be winners and losers. In this case, the losers will be heavily concentrated in
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the most vulnerable sections of rural society, while the winners will be the more prosperous. For the rural poor, NAFTA will accelerate a process in which casual, seasonal labour on commercial farms, and migration to the US, is displacing labour on family farms as the main source of livelihood.

In value terms, the most important gains will be registered in the fruit and vegetable sector. This accounts for about 40 per cent of the value of Mexican agricultural exports, but less than 6 per cent of cultivated land. The overwhelming majority of the land planted to export crops is located in North Pacific coast districts such as Sinaloa and Sonora, the irrigated valleys of El Bajio, and lowland areas such as Michoacan and the coastline along the Gulf of Mexico. Most of the crops are grown on large irrigated farms, usually working under contract with agro-industrial processing plants or commercial exporters; and typically with access to extensive capital resources and marketing infrastructure.

The agro-industrial sectors in this region have been identified as a major growth point for the Mexican economy, and a number of measures have been implemented to encourage private sector investment in this area. These include extensive tax breaks and wage restraint measures. More significantly, Article 27 of the Mexican constitution has been reformed to remove restrictions on the private ownership of land. Firms may now own up to 2,500 hectares and lease in ejido land (a system introduced after the 1910 revolution, whereby the government distributed expropriated land to smallholders but retained the title to prevent wealthy landholders from reclaiming it).

Estimates of the potential for increased fruit and vegetable exports vary, partly because of the uncertainty which continues to surround many aspects of implementation. Discrepancies between US and
Markets and Modernisation

Mexican phyto-sanitary standards have resulted in restrictions on a number of exports, and a ban on avocado exports. According to some analysts, weaker phyto-sanitary standards in Mexico constitute an important element in the country’s comparative advantage in fruit and export production, suggesting that efforts to comply with US standards will result in reduced export growth. Given that the cost advantage of Mexican producers is limited for most major vegetable exports, with high productivity in the US compensating for higher wage costs, this is an important consideration.

Moreover, US and Mexican fruit and horticulture production is largely complementary, so there is limited scope for penetrating off-season markets in the way that Chile has in Europe. While modelling exercises aimed at estimating growth potential are fraught with difficulties, one of the most comprehensive confirms the impression of a limited expansion of exports, predicting gains in the range of 25-30 per cent.\textsuperscript{108}

Maize Smallholders

The losers from trade liberalisation will be located in the staple food sector, which is dominated by maize. Production of maize accounts for 20 per cent of the total value of agricultural production and for over 40 per cent of cultivated area. More importantly, it accounts for almost two-thirds of the rain-fed cultivated area, which generates about 60 per cent of total output and 40 per cent of subsistence output. These figures point to the importance of maize, both as a source of food and source of income, to the country’s poorest households, around 2.4 million of which depend on maize production. About 30 per cent of maize output comes from large-scale irrigated farms, with small- and medium-scale ejido operators providing a similar amount\textsuperscript{109}.
The structure of maize production in Mexico is central to any understanding of the likely effects of NAFTA. Most peasant households in rain-fed areas operate with little investment, often working on ecologically fragile hillsides. Their yields are exceptionally low by comparison to those in the US Mid-West, averaging around two tons per hectare compared to 7.5 tons. Any move towards liberalisation will expose Mexican producers to competitive pressures which many will find unbearable, which explains why maize imports are projected to rise by up to 200 per cent as a result of NAFTA. According to one estimate, fewer than 10 per cent of Mexican maize producers would be viable without import protection, suggesting that the livelihoods of around 2.4 million producers and their families are at stake. It is inconceivable that any system of direct welfare payments could compensate for losses on this scale, especially with the stringent conditions attached by the country’s creditors to loans advanced in the aftermath of the financial collapse in 1994.

Such projections illustrate not only the highly skewed distribution of benefits which can be anticipated from NAFTA, but also the enormous food security threat which it poses to some of the most vulnerable communities in Mexico. As has been widely observed elsewhere, recent moves towards liberalisation have increased the marginalisation which has been underway since the early 1980s. Fiscal crisis and the rigours of IMF stabilisation programmes after 1982—and, more especially, after 1987—resulted in a protracted price squeeze, as the capacity of state agencies to provide subsidised inputs and price support diminished, and as imports were increased to keep food prices down. In this sense, the NAFTA marks the latest phase in a policy continuum. By the same token, it will compound the deepening social crisis in the Mexican countryside which has accompanied the decline of the maize sector.
Survival strategies

That crisis has several dimensions which are of wider relevance to any debate over food security and trade liberalisation. Perhaps the most important is the emergence of complex survival strategies adopted by peasant households to cope with adverse developments in the maize markets. To an increasing extent, off-farm income has become essential to compensate for falling prices, both to purchase basic household durables and to cover household food deficits. Even for those households producing mainly for subsistence, wage labour is necessary to purchase the inputs needed for subsistence production, especially in areas where the depletion of top soils and nutrients has made non-organic fertiliser vital for production.\(^{113}\)

For poor households in rain-fed areas, migration has not been a response to market opportunity, but part of a desperate survival strategy. One study of smallholder maize producers in Michoacan, records how families regard migration as a “necessary evil”.\(^{114}\) Although temporary work has long been a feature of rural life, it has grown in importance. Within Mexico, the most common sites for migrant labour are the large-scale commercial farming areas in the north-west of the country, where highly insecure day and seasonal employment practices dominate. For most households, however, migration to the US is the preferred option.

The remittance of wages by migrant labourers has become a crucial element in household survival. However, emigration also has negative food security implications. Remaining family members, especially women and children, face increased work loads, diminishing the quality of life. The ‘feminisation’ of the agricultural labour force in the most marginal areas—such as Oaxaca, Guerrero and Morales—has been widely documented.\(^{115}\) At the same time, migration creates labour scarcity, which in turn reduces the
productive capacity of peasant agriculture and reinforces the pressures leading to migration.

Migration also has important environmental consequences. Agricultural production in many of the most marginal rain-fed areas has traditionally been based upon highly diversified and labour-intensive resource management systems, in which the maize field (or milpa) plays a central role. The loss of labour can make such systems unviable, sometimes encouraging recourse to inputs not suited to the ecology of the area.

Liberalisation under NAFTA is likely to marginalise producers of the domestic food staple, deepen already intense rural poverty, encourage migration to commercial areas and the US, and increase the labour burden on women. It is also likely to increase Mexico’s already acute dependence on food imports. These currently represent around one-quarter of consumption (or almost 7m tons), which is twice as large as the world average. Any further loss of self-sufficiency would have important food security implications in view of Mexico’s large debt and persistent balance-of-payments problems.

MAIZE LIBERALISATION IN THE PHILIPPINES

Maize production is central to rural livelihoods in the Philippines. In 1990, about 2 million people depended for their livelihoods on the production of maize, which accounts in turn for over half of the cultivated area under food grain. Production is heavily concentrated on the ‘corn bowl’ of Mindanao, where two-thirds of production takes place, although the Cagayan Valley region has rapidly increased its share of national production. Between them, these two regions account for three-quarters of total production. Maize is the staple food for about one-fifth of the Philippines
population. However, over the past fifteen years the production of (mainly yellow) maize for the expanding animal feeds market has increased rapidly, accounting for 40 per cent of output and 28 per cent of land area in 1990.\textsuperscript{117}

Poverty is endemic in the major maize growing regions. It has been estimated that around half of all maize producing families live below the poverty line, while Central Mindanao is the lowest ranking province in the Philippines when measured by the UNDP’s Human Development Index.\textsuperscript{118} It follows that developments in the national corn market have an important bearing on poverty and vulnerability to food insecurity. Peasant households produce white maize for their own consumption, selling any surplus in local food markets. Yellow maize, sold to the animal feed processing industry, has become an increasingly important source of cash income. In contrast to production, demand for yellow maize is located overwhelmingly in Metro Manila and adjacent provinces—and this geographical segmentation of markets significantly raises marketing costs.

**FOREIGN COMPETITION**

Since the mid-1980s, the agricultural sector in the Philippines has been opened to foreign competition under successive reform programmes. Imports of wheat and soybean meal were liberalised in 1987 with the elimination of export licenses previously held by the National Food Authority (NFA). Rice and maize imports have continued to require NFA authorisation. However, quantitative restrictions were reduced after 1989, leading to a surge in imported maize in 1990. The main sources of imported maize have been China, Thailand and the US. While the government has retained a presence as a buyer of last resort in the maize market, its role in setting prices has been more nominal than real. Government
intervention buying typically covers only around 3 per cent of maize production.\textsuperscript{119}

Under the Uruguay Round agreement, the market for imported maize will be further liberalised. The minimum access provision of the agreement will require the Philippines to increase the national import quota from 135,000t in 1995 to 216,000t in 2004 at a fixed tariff of 35 per cent. The tariff for imports above this quota will decline from 100 per cent to 50 per cent over the same period.\textsuperscript{120} However, the Philippines Government is considering an accelerated reduction to a lower final tariff. This would be consistent with its wider agricultural modernisation strategy, which aims at reducing the cultivated land area under staple food crops and increasing public investment in commercial agriculture. The Department of Agriculture plans to reduce the 5m hectares currently planted to rice and maize to just under 2m hectares in total, and to divert the remaining 3m hectares into the cultivation of cash crops and livestock production.\textsuperscript{121}

What does this mean for maize producers? Most importantly, it means that they will be faced with increasingly intensive competition from importers. Crop yields in the Philippines are under half of those in Thailand and one-quarter of those in the US. Production and marketing costs are also high. Even with a 100 per cent tariff, Thai maize can be marketed in Manila at prices around 10 per cent cheaper than maize from Mindanao.\textsuperscript{122} Subsidised US maize is competitive with Thai maize, and in more plentiful supply as Thailand's own livestock sector expands, hence the optimistic USDA market assessments outlined earlier.

**INFRASTRUCTURE AND RURAL LIVELIHOODS**

The differential between imports and domestically produced maize in Manila reflect the dilapidated state of marketing and
productive infrastructure in the Philippines, which renders the maize sector at a serious disadvantage in facing foreign competition. Practice double-cropping, according to the World Bank. As a result, they are at a major disadvantage in competing with imports. Restoring rural infrastructure and creating opportunities for poor households will require an increase in public investment, especially in poor areas.

However, spending priorities have been moving in the opposite direction, with the share of agriculture in total government expenditure falling from around 11 per cent from 1976-1983 to 6 per cent during 1992-1994. Today, the Philippines has the lowest ratio of public expenditure for agriculture to total expenditure and GDP in the Asean region. The consequences have been cogently summarised by the World Bank: "the current level of public expenditure on agriculture is inadequate if the agricultural sector is to become an important engine of growth and make a significant contribution to poverty alleviation the second half of the 1990s".

An increase in maize imports into Manila will have strong price transmission effects to Mindanao and the Cagayan Valley. In 1990, the arrival of large import shipments during the peak harvest months contributed to a slump in prices, reduced plantings for the next seasons and severe losses in household incomes. Translated into social costs, it has been estimated that the GATT agreement will result in lost livelihoods for a minimum of 35,000 households. The real figure is likely to be substantially higher as the import market is liberalised. Increased imports of wheat and soya, which substitute for maize in animal feeds production, will add to the market pressures faced by smallholder producers.

According the Government of the Philippines, any loss of rural livelihoods in the maize sector will be compensated for by an
increased demand for labour in the commercial sector. Whether or not this is valid will depend partly on whether or not the export growth projections developed since the Uruguay Round are valid. Increased regional and international competition in areas such as horticulture, livestock and flower production could lead to more restricted opportunities than have been assumed. In the edible oils sector, there may also have been an over-estimation of demand, especially in the EU market.

Under the Blair House accord between the EU and the US, intervention prices for oilseeds were abolished in favour of direct payments. The EU's commitments to GATT also resulted in a set-aside arrangement which limits the area planted to oilseeds for food use. However, this has resulted in an expansion in production of oilseeds planted for industrial use—a category which is exempt from set-aside restrictions. In addition, while unprocessed oils will continue to enter the EU market duty-free, tariff escalation—or the imposition of higher import duties on processed products—will remain in force to protect the powerful EU processing industry. While most market projections point to an expansion of tropical oils exports, they also suggest that this will be concentrated in the palm kernel sector, where the Philippines has been losing market share to Indonesia.\textsuperscript{126}

Whatever the developments on international markets, the most marginal maize farmers lack access to the credit, markets and technologies needed to enter commercial export crop production as anything other than seasonal wage labourers. Given the volatile state of international markets for the major commercial exports produced by the Philippines and the intense regional competition the country faces, this would hardly appear to be a sound basis for food security. An alternative strategy would be to maintain an
effective system of protection while creating the conditions to enhance smallholder competitiveness through infrastructural investment and agrarian reform.
Towards an Agenda for Reform

Food security problems will not be resolved by reform of the world agricultural trading system, or by farm policy reforms in Europe and North America. Agrarian reform, in conjunction with infrastructural support for smallholder producers, is part of the answer. The experience of South Korea and Taiwan illustrate the potential social and economic benefits to be derived from a more equitable distribution of land and public investment. The fact that agrarian reform was carried through in both cases by an occupying power, also illustrates the political difficulties of moving in this direction in the face of entrenched interests. More generally, the experience of countries such as Thailand and Taiwan suggests that broad-based agricultural growth strategies can both create a framework for balanced growth, and meet food security objectives. Such strategies require concerted public investment in infrastructure and marketing, along with some degree of protection from distorted global markets.

As one element in a broader food security strategy, international food trade reform could help to contribute to improved welfare.
the regulation of agricultural trade, two measures would appear to be particularly important, namely:

- the reform of World Trade Organisation (WTO) and regional trade association rules to allow developing countries to protect their food systems up to the point of food self-sufficiency for social, ecological and economic reasons. The development of a food security clause for the WTO and regional trade groupings ought to be at the head of the FAO’s 1996 Food Security Conference agenda.

- the introduction of more effective WTO rules to outlaw the dumping of agricultural surpluses. Artificial distinctions between ‘market intervention’ measures and ‘non-trade-distorting’ subsidies have institutionalised in the WTO levels of subsidised over-production and export dumping which would be unthinkable in other sectors of international trade. What is needed is a less opaque definition of export subsidisation for agriculture, consistent with the wider anti-dumping provisions of the WTO: namely, that products should not be marketed overseas at prices below their costs of production at home.

Such measures would help to bring international trade provisions into line with more broadly-based international human rights provisions concerning the right to food. Whatever the arrangements of states in relation to commitments on liberalisation, this right has a prior claim which should be reflected not only in the WTO, but also in the policies of multilateral financial institutions.

Turning to northern agriculture, far-reaching reforms of farm policy in the US and the EU are long overdue. There is little prospect of any meaningful action at an international level until the farm superpowers set their own houses in order, which they appear
politically incapable of doing. Historically, GATT rules were
developed not to promote a stable agricultural trade and food
security environment, but to accommodate the interests of the US
in dumping its agricultural surpluses overseas. The WTO has now
institutionalised in world trade rules subsidy systems which will
continue this tradition into the next century.

Until farm policy makers in the industrialised world acknowledge
the need to reduce domestic production to levels consistent with
market opportunities at home and unsubsidised demand overseas,
the ruinous cycle of over-production in the North and food
dependency in the South will continue. Narrowly-defined market
solutions are not the answer. Agricultural support in the
industrialised world needs to be reoriented to meet a more diverse
range of objectives than maximising output and productivity.
Among these objectives, protecting the social fabric of the
countryside, environmental sustainability and consumer health
should be paramount. There is no ready-made blueprint for
removing agriculture from the treadmill on which it is now trapped.
However, four policy approaches suggest themselves:

- **Limiting price support payments** to levels of output consistent
  with the absorptive capacity of the home market and unsubsidised foreign demand.

- **The redistribution of price support towards smallholder producers** through the introduction of upper ceilings on the
  amount of land, output and livestock supported. Small farm
groups in Germany have proposed a sliding-scale of income
  support, with the value of transfers falling for higher output
  levels.

- **Establishing a linkage between price support and environmental policy objectives.** One example of such an
AN AGENDA FOR REFORM

approach, proposed by groups in the UK, would be to link payments to farm plans, with incentives provided for the reduced use of pesticides and chemical fertilisers, and the maintenance of hedgerows, meadows and forests.

- The imposition of taxes on inputs such as nitrogenous fertilisers which fuel over-production and generate environmental problems.

In themselves, such measures would make a modest contribution to the elimination of world hunger. They would, however, create a framework within which a 'win-win' scenario could be developed for rural communities in developing countries, and for small farmers, the environment and consumer groups in the industrial world. At the very least, it would offer an alternative to the future of deregulation and food dependence which is being contrived by powerful food policy interests in the North and their allies among Third World elites.
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Apart from their export dependence, European and North American agricultural policies have four other features in common: they skew the distribution of benefits from public support towards the largest farmers, they have failed to halt a long-term decline in farm income and employment, they have caused enormous environmental damage, and they have progressively incorporated farming into a wider agro-industrial complex.

The skewed distribution of benefits from farm income support is a natural corollary of subsidising virtually unlimited output as a means of effecting income transfers. Stated simply, the larger the output of the farmer, the more subsidies they can anticipate. In both Europe and the US, it has been estimated that the largest 25 per cent of farms receive over 75 per cent of income support.

Farm income support measures have not been sufficient to counter a long-term decline in net farm income, either in the US or the EU. Average farmgate prices have fallen relative to the costs of inputs, leaving the farm sector facing a deteriorating terms of trade - and farmers with a dilemma. The only way that producers can maintain their income in a market where prices are falling is to expand their margins by lowering unit costs faster than prices fall. Farmers have attempted to achieve this by applying ever-increasing quantities
of industrial inputs, such as agro-chemicals, machinery, and producing greater output to be sold into guaranteed markets. Agro-chemical companies, a formidably powerful lobby in opposing supply control measures, have played a key role in facilitating this adjustment by developing new seed varieties, inorganic fertilisers and new pesticides. Average productivity has risen at a staggering rate of over 3 per cent per annum since the mid-1970s.

Such, averages obscure as much as they reveal in this context. In particular, they obscure the fact that smallholder producers have been less well placed to exploit the capital-intensive economies of scale encouraged by price support than large farmers—hence the restructuring of agriculture around the largest farms. The clear message from farm policy makers to farmers has been 'get big or get out', which is what has been happening in both the US and the EU. In Britain, around 5,000 full-time smallholder farmers have been leaving the land each year since the early 1990s. Reflecting this trend, the number of holdings over 20 hectares has increased by more than one-third over the past thirty years, and average farm size has grown from 42 to 66 hectares. The trend towards concentration and economies of scale explain why price reductions have not—and remain unlikely to—reduce output. Price pressures operate first upon the most marginal producers, who produce a relatively small proportion of the surplus, while larger producers are well placed to negate price reductions through raised productivity.

The environmental costs of intensive agriculture have become a source of mounting political concern. In the US, some 50 million people are at risk from pesticide contaminated groundwaters. Intensive mono-cropping has contributed to severe soil erosion, with America losing an estimated one billion tons of soil in the 1980s.
- equivalent to 400,000 hectares of land. In intensive farming areas of France, Britain and Germany, nitrate pollution in groundwaters is a source of mounting concern, with almost 2 million people affected in Britain. Meanwhile, the loss of natural habitat, such as forests, meadows and hedgerows has spawned a powerful environmental critique of the CAP. Political response to growing pressure from the environmental movement has been to develop environmental programmes as an appendage to income support policies. Payments for good stewardship in environmentally sensitive areas are the main 'green' measures in farm policy. However, there has been no attempt to integrate environmental provisions into price support or wider production policies.

Finally, in both the US and the EU farming is now the smallest and weakest link in the food chain, relentlessly squeezed by its growing dependence on the supply of agro-chemical inputs and the needs of the food industry and grains exporters. About two-thirds of the value-added in the food chain in the US can be attributed to the 'downstream' food industry, another 27 per cent to the agricultural supply sector, and a mere 10 per cent to farming (skewed towards the big farm sector). Thus while farming accounts for a small and declining share of US employment and GDP, the food industry is one of the largest in the country, accounting for one-in-six jobs. Any agenda for radical reform of agricultural policy has to start from measures to break the power of the powerful agro-industrial complex, encompassing food chains in the retail sector, transnational trading companies, chemical suppliers and seed companies, and the representatives of big farm interests.
Domestic support to farmers in OECD countries has been provided through a complex variety of mechanisms which operate by:

- keeping domestic farm prices above those prevailing in international markets, and above the levels which would occur in a deregulated market
- providing subsidies to farmers either directly by linking income transfers to output or units of production (i.e. land and livestock)
- providing farmers with direct payments not linked to output (i.e. for environmental services)
- restricting imports

The intervention systems designed to achieve these objectives reflect historical and political circumstances. Before the CAP reforms of 1992, the EU relied almost entirely upon market interventions aimed at raising the price of output. The CAP intervention price provided farmers with a guaranteed market, while variable import levies were used to insulate this market from foreign competition. As surpluses increased, export restitution (equivalent in scale to import levies) was used to bridge the gap between (higher) CAP
prices and (lower) world market prices. The US has traditionally combined market interventions with direct payments. Government purchase of stocks through the Commodity Credit Corporation keeps surpluses off the markets and raises prices. Where these prices fall below a guaranteed level, farmers are entitled to a deficiency payment equivalent to the difference between a Loan Rate (in effect, the guaranteed market price) and a Target Price. On average, US wheat farmers have been entitled to Deficiency Payments of up to $34 per ton of corn and $52 per ton of wheat for the 1995 crop. The US Loan Rate, effectively sets world prices for wheat, coarse grains and soya.

Since 1992, when the CAP was reformed, the EU has combined its traditional approach with a US-style system. Thus the intervention price for wheat has been reduced from around $210 a ton to $140 a ton, with direct payments compensating farmers for the resulting losses. Prior to the reform of the CAP, US Loan Rates were typically between 40 per cent and 50 per cent lower than EU intervention prices, and thus much more closely aligned to world market prices. Since the reform these prices have moved closer together, although the EU intervention price remains higher than the US Loan Rate. For wheat, the 1995 US Loan Rate stood at $94 per ton, compared to and EU intervention price of around $150 per ton.

For the OECD countries as a group, the total value of the subsidies provided through income-support interventions (measured in terms of the direct payments which would be required to compensate farmers for their removal) is around $175bn.

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