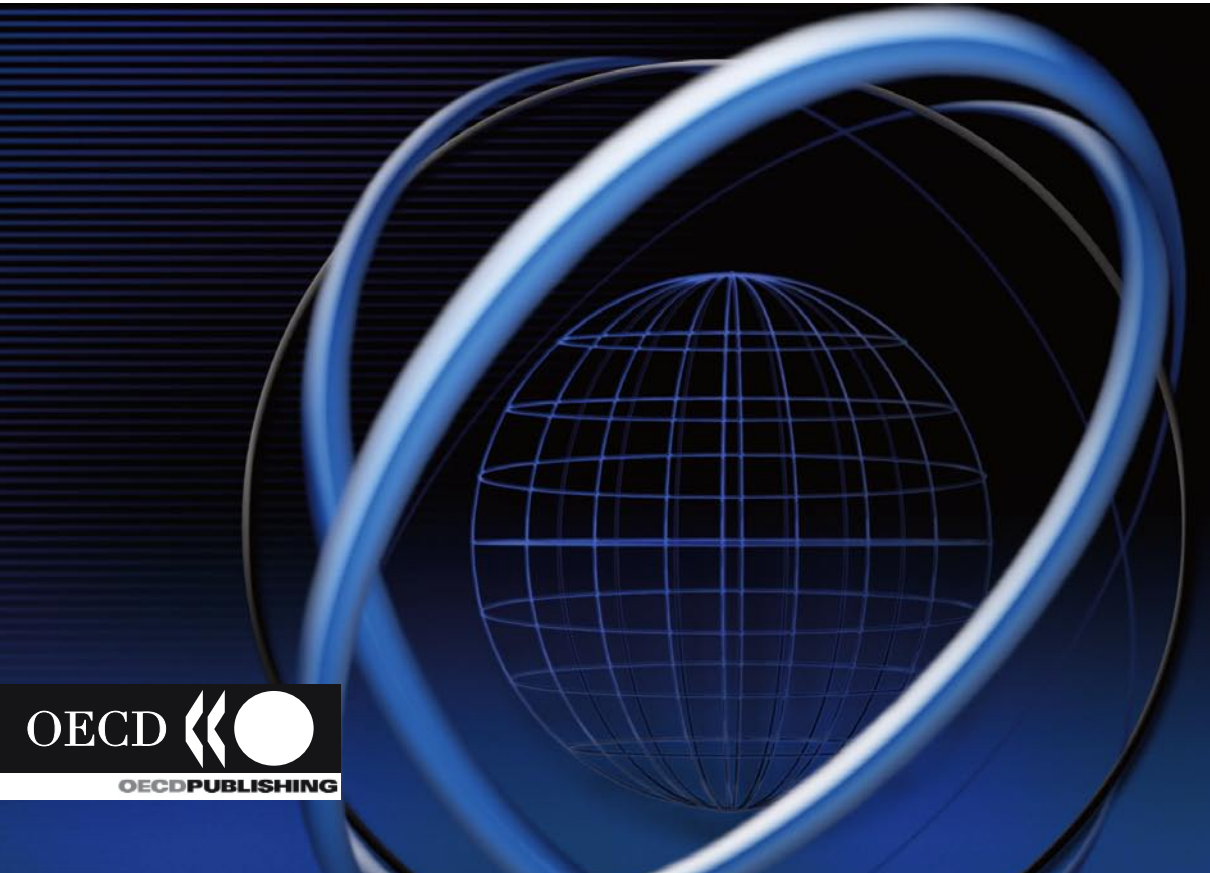
The Development Dimension

The Development Effectiveness of Food Aid

DOES TYING MATTER?



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LES EFFETS DE L'AIDE LIÉE

Foreword

In the context of the 2001 Development Assistance Committee (DAC) Recommendation on Untying Official Development Assistance to the Least Developed Countries[1] *and against the background of the WTO Doha Development Agenda, as well as the possible renegotiation of the 1999 Food Aid Convention, the DAC asked for a factual assessment of the developmental effectiveness of food aid and the effects of its tying status.*

The assessment gave rise to the present document. It was commissioned by the DAC Working Party on Aid Effectiveness and Donor Practices. It is published by the DAC, whose members work together to increase the effectiveness of their aid.

This study was undertaken by Dr. Edward Clay, Senior Research Associate with the Overseas Development Institute (UK), in collaboration with Barry Riley, who was primarily responsible for the investigations concerning the United States and Canada, and Ian Urey, Imperial College London, Wye Campus, as statistician.[2]

The team benefited from advice and information provided by many individuals within DAC members' development agencies, as well as Dirk Bezemer and Kelvin Balcombe (Imperial College, London), Jonathan Innes (Booker Tate Ltd), Jens Schulthes (formerly WFP), Chris Barrett (Cornell University) and Max Merbis (Free University, Amsterdam).

Diana Evans edited this volume with the assistance of Amy Arnstein and Ann Gordon. The project was managed by Frans Lammersen.[3]

The work has been carried out thanks to generous voluntary contributions from Belgium, Germany, Sweden and the United Kingdom.

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Acronyms

ACT	Alternative commercial transaction
BoP	Balance of payments
CCC	Commodity Credit Corporation
CIF	Carriage, insurance and freight
CSB	Corn soya blend
DAC	Development Assistance Committee (OECD)
EC	European Commission
EU	European Union
FAC	Food Aid Convention
FAS	Free alongside ship
FBP	Food-based programmes
FECN	Food for Education and Child Nutrition (programme)
FFW	Food-for-work
FOB	Free on Board
FOREX	Foreign Exchange
FY	Financial or fiscal year
GNI	Gross National Income
IEFR	International Emergency Food Reserve
IFP	Intensive Feeding Programme
IGC	International Grain Council
INTERFAIS	International Food Aid Information System (World Food Programme)
IPP	Import parity pricing
ITSH	Inland transport, shipping and handling
MCH	Mother and Child Health
MCHN	Mother and Child Health and Nutrition
MDGs	Millennium Development Goals
NGO	Non-governmental organisation
ODA	Official Development Assistance
OECD	Organisation for Economic Co-operation and Development
PDRK	People's Democratic Republic of Korea
PRRO	Protracted Relief and Recovery Operation
RTE	Resource transfer efficiency
SFP	School feeding programmes
SMP	Skimmed milk powder

SSA	Sub-Saharan Africa
TFP	Therapeutic Feeding Programme
UNHCR	United Nations High Commission for Refugees
USAID	United States Agency for International Development
USDA	United States Department of Agriculture
USGAO	United States General Accounting Office
VGF	Vulnerable Group Feeding
WFP	World Food Programme
WSB	Wheat soya blend
WTO	World Trade Organisation

Preface

Feeding the hungry is almost universally regarded as a compelling moral obligation. The international community has thus recognised that one of its most important goals[1] is to halve the proportion of people who suffer from hunger by 2015. In addition, policies to attack hunger and malnutrition have been identified as one of the best ways to advance global welfare, particularly in developing countries.[2]

Food aid in kind was one of the earliest aid instruments and accounted for over 20% of all official development assistance in the 1960s. Over the last 40 years, however, the absolute value and relative importance has declined dramatically to less than 5% of total ODA.

The character of food aid has changed over time. More frequent, more severe and longer crises worldwide, both man-made and natural, have increased the role of food aid in feeding emergency victims. Between 1989 to 1999, the share of emergency food aid to total food aid doubled from 20% to 45%.

Tied food aid raises issues of cost effectiveness. This has been assessed by the OECD Development Assistance Committee in the context of its 2001 Recommendation on Untying Official Development Assistance to the Least Developed Countries and its broader agenda on aid effectiveness. At the same time, particularly for donors who have not set themselves specific targets for aid as a proportion of their GNI, it is likely that there is at least some "additionality" in their food aid programmes. Some commentators also argue that direct food-based approaches may, in some cases, produce a more immediate nutritional benefit than cash-based programmes.

This study provides a detailed look into two food aid issues: the first is a comparision of the relative costs of providing food aid in kind with cash contributions, and second is the inherent costs involved in tying food aid. The empirical findings of this study show that, in most circumstances, financial aid rather than food aid in kind is the preferable option, not only for providing project assistance or budgetary support for general development, but even for

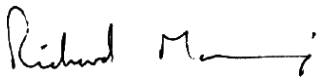
1. United Nations Millennium Development Goals (*www.un.org/millenniumgoals*).
2. *www.copenhagenconsensus.com*.

the distribution of food. The study points out that in many food-deficit situations, local procurement is not always a feasible option, particularly in emergency situations. The study argues therefore that a context-specific rationale is always required when relying on food aid in kind in preference to financial aid.

Furthermore, the study goes on to argue that, for the donor, food aid is often relatively expensive if the aid is tied. The survey compares the costs to the donor of providing tied food aid instead of financing commercial imports to be at least 30%. The actual cost of tied direct food aid transfers was, on average, approximately 50% more than local food purchases and 33% more costly than procurement of food in third countries. Thus, there is scope for considerable efficiency gains in switching to less restricted sourcing.

This study should provide food for thought for policy makers who are involved in developing a coherent strategy for food aid: one that takes account of developmental, as well as agriculture and trade objectives. A more coherent approach is warranted, since, as the study notes, food aid policies operate in a rather compartmentalized environment in most countries. In light of the upcoming WTO negotiations on agriculture and the possible renegotiation of the Food Aid Convention, a coherent approach is required. Instead of food aid being a problem, it must become an effective mechanism to deliver food to those most in need in circumstances where food aid in kind really does have an advantage.

Richard Manning
DAC Chair



In order to achieve its aims the OECD has set up a number of specialised committees. One of these is the **Development Assistance Committee**, whose members have agreed to secure an expansion of aggregate volume of resources made available to developing countries and to improve their effectiveness. To this end, members periodically review together both the amount and the nature of their contributions to aid programmes, bilateral and multilateral, and consult each other on all other relevant aspects of their development assistance policies.

The members of the Development Assistance Committee are Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Japan, Luxembourg, the Netherlands, New Zealand, Norway, Portugal, Spain, Sweden, Switzerland, the United Kingdom, the United States and the Commission of the European Communities.

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Executive Summary

Food aid has declined in absolute value and relative importance from over 20% of total bilateral official development assistance (ODA) in the mid-1960s to below 5% since the mid-1990s. Meanwhile, the share of food aid for humanitarian relief and crisis-related emergency assistance has increased at the expense both of development programmes and project aid. These trends are manifest in the food aid programmes of both the major food aid donors, the United States (over 50% of total bilateral food aid) and the EC (over 10% of total bilateral food aid), and most other DAC members. Total expenditure by the World Food Programme (WFP), currently channelling about half of global food aid, has risen because of its key role in relief, whilst its development portfolio has contracted.

Development effectiveness of food aid

An uncertain resource: over the years, food aid levels appear to have become more volatile. Allocations relate poorly to partner country needs in terms of poverty and food security indicators. Global food aid continues to be pro-cyclical, *i.e.* least available when international prices are high. Meanwhile, international and agency efforts to make food aid more assured, including through the Food Aid Convention, have had limited success, and merit further investigation. Finally, the increasing priority accorded to humanitarian crises implies that some countries and some development activities are likely to be *excluded,* whilst others are marginalised within the food aid system. This raises questions about how food aid can be utilised effectively to support longer-term poverty reduction and other development.

The developmental effectiveness of food-based interventions to promote food security and poverty alleviation, and the use of food aid as the transfer mode to support these interventions, remains an unresolved issue. Evidence from evaluations, audits and studies during the 1990s only narrowed the controversy. Most independent reviews of food-aided development activities ranged from being guardedly positive to cautiously negative. A review of contemporary literature and information collected from donor agencies revealed limited new evidence on the developmental effectiveness of food aid that was provided in the last five years. This study therefore draws heavily on the record from the 1990s, complemented by the limited amount of more recent evidence.

Emergency food aid plays a clear and crucial role in saving lives and limiting nutritional stress in acute crises caused by conflict or natural disaster. However, there are many reported shortcomings of food aid in responding to these crises. In particular, these include: *i)* serious institutional inflexibilities; *ii)* the restricted basket of available commodities, which partly reflecting tying, sometimes creates difficulties in providing socially and nutritionally appropriate rations; and *iii)* the late arrival of emergency aid that frequently hampers post-crisis agricultural recovery.

Livelihood protection: food-based interventions play a role in limiting suffering and the damaging impacts of a shock on livelihoods. Finance for locally sourced food or imported food aid can and should play a role in supporting such interventions. The effects are dependent on the specifics of the local context and include: *i)* whether food aid is transfer efficient; and *ii)* whether poverty reduction and other potential developmental implications of food aid are addressed.

Local economic development: recent investigations on the effectiveness of food aid are inconclusive. They largely reconfirm earlier findings of marginally positive or negative development impacts with links to unsatisfactory programming in relation to assistance needs. Evidence on *local agricultural development* is also inconclusive. Some positive impacts of pilot and small-scale projects are countered by the persistent reporting of the negative effects of food-based interventions. These reports emanate from those working closely with agriculturalists, and in poor rural communities. Such a range of outcomes suggests the critical importance of context-specific influences on effectiveness.

Changing consumption patterns are associated with rapid processes of urbanisation and growth in non-agricultural employment. This makes it difficult to isolate changes in food consumption that can be attributed to food aid.

Programme food aid declined after critical and unsupportive evaluations and reviews in the 1990s, which highlighted a combination of ineffectiveness, especially in promoting national economic development, and poor transfer efficiency. Programme aid is now the least assured and the least evaluated category of food aid and its developmental rationale is in doubt.

Project aid for direct distribution in food-based interventions: findings range widely from moderately positive to extremely negative in terms of poverty reduction goals or, more narrowly, nutritional improvement. This apparent range of outcomes partly reflects the continuing failure to rigorously monitor and evaluate impacts of these kinds of interventions. Food-based interventions often reach the poorest, such as women or malnourished children. However, exclusion occurs, in particular for those who fail to attend mother and child health (MCH) centres, or the poorest 10% of children who do not go to school. Furthermore, the lack of complementary non-food inputs is consistently

identified as a constraint on project performance. Thus food-based intervention is more likely to succeed as an integrated component of a wider sectoral programme, for example in health or education. These lessons from earlier reviews prompted considerable policy reformulation for project food aid. However, the evidence is still insufficient to confidently assess the extent to which practices have significantly changed and with measurable impacts. Donors should consider strengthening monitoring and undertaking more rigorous assessments.

Monetisation is an innovation that has become a significant feature of international food aid. In 2002, approximately half of all project food aid channelled through NGOs and 13% of delivered food aid was monetised in this way. This trend implies a wide range of circumstances in which project designers saw direct distribution as being less appropriate in poverty reduction and food security promotion. A fuller assessment of the developmental consequences of providing food for cash is needed, including impacts on markets in beneficiary and neighbouring countries.

Financial aid is in most circumstances the preferable option: that is an area of near-consensus in independent reviews. This is almost always the most effective and efficient way of funding either direct distribution of food or providing budgetary support for general development and project assistance. Therefore a context-specific rationale is always required when relying on food aid in preference to financial aid.

The effects of tying food aid

According to the DAC definitions, food aid continues to be overwhelmingly tied. As virtually all food aid is subject to some form of legal or administrative restriction on source of procurement and associated delivery services, it is logical to contrast the cost efficiency of food aid with the actual or hypothetical costs of imports procured on a competitive basis.

Resource transfer efficiency

The study quantifies the cost efficiency of tied food aid for the wider DAC community and not just a single donor. Aid tying would be expected to reduce the resource transfer efficiency (RTE) compared with unrestricted financial assistance. Other negative effects are also likely because of the trade-offs implicit in combining development objectives with promoting domestic agricultural, transport, and processing interests in donor countries.

The analysis of RTE involved comparing the actual *aid costs* incurred by the donor agency (net of any internal agriculture-related expenditure) with the hypothetical cost of an alternative commercial transaction (ACT) for

importing the same volume of food into the recipient country at the same time as the food aid delivery. The ratio of the actual cost and the ACT provides a measure of RTE in procurement and delivery of the food to beneficiary countries. This ratio is a conservative estimate of the efficiency costs of providing or funding commodity aid compared with making a financial transfer to the recipient country or final beneficiaries. Both the aid cost and the ACT excludes the transaction costs of organising, internally handling, storing, and then selling or distributing the food. The ACT is based on widely quoted international prices and so is very likely the highest cost for importing the same volume of food into the recipient country.

The results are based on a survey including 1 119 separate food aid actions during 2002-03 for 15 recipient countries funded by 16 DAC members. This represented approximately 30% of global food aid as reported to the World Food Programme (WFP) INTERFAIS, amounting to almost three million tonnes of commodities and USD 790 million of donor aid expenditure on procurement and shipping.

The cost of tying food aid

The survey calculates that the overall inefficiency cost of providing tied food aid (*i.e.* direct transfers) instead of financing commercial imports is at least 30%. The actual costs of tied food aid transfers was on average approximately 50% more than local food purchases and 33% more costly than procurement of food in third countries (triangular transactions). Thus direct food aid was almost invariably more costly than alternative commercial imports or actual local purchases or triangular transactions. The most resource transfer efficient forms of food aid are likely to be flexibly sourced, either within the recipient country or from third countries, but not necessarily always a developing country.

Cost efficiency varies widely amongst donors, modes of supply, commodities and destinations, ranging from 10% below to more than 55% higher than the cost of alternative commercial imports. Donors who have formally untied, or who have the least restrictive procurement rules, provided the most cost-effective food aid. Those donors who generally tied their food aid also funded some local and triangular purchases, and these actions were relatively more cost-effective than their tied food aid programmes. Organisations specialising in procurement and logistics (*e.g.* WFP) appear relatively more cost-effective in their local purchases and triangular transactions. Cost differences are not purely a matter of transaction size, but perhaps also of the scale of operation.

Amongst the foods surveyed the largest difference in RTEs (68%) was between local purchases and direct transfers of highly processed and blended foods. This finding supports widespread concerns about the inefficiency of providing "as tied" high value-added foods, processed in OECD countries. This form of

aid is not only highly cost-inefficient, but is also a missed opportunity for donors and their partners to promote local agri-processing capacities.

The overall results show that there are substantial cost inefficiencies associated with tying food aid although some tied aid was quite efficient. The levels of inefficiency are context specific, depending on the commodity, destination and whether the commodity was to be sold, to be monetised or to be directly distributed. There is scope for considerable efficiency gains in switching to less restricted sourcing. Triangular transactions were a third less costly than direct aid. Unrestricted sourcing would be expected to achieve even greater cost savings. The relative efficiency of local purchase and restricted third-country purchasing also suggests that benefits of untying would not just flow to middle-income crop/food exporting countries. Greater donor flexibility in sourcing would clearly benefit agricultural development in many low-income developing countries.

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Chapter 1

The Development Effectiveness of Food Aid

Chapter 1 addresses the developmental effectiveness of food aid. The translation of food aid objectives into outcomes in recipient countries requires, as a first step, to establish the precise form and scale of the resource transfer, and next, the extent to which the resource transfer is likely to facilitate or inhibit the successful realisation of developmental goals. Thus, Chapter 1 considers the translation of food aid objectives into outcomes in two ways: i) *a review of the food aid programmes of the major donors; and* ii) *an* a priori *exploration of the appropriateness of food aid for promoting longer-term development. The chapter starts with a short explanation of the methodology employed and a description of the scope of the examination. The examination is based on a literature review, complemented by a statistical analysis of the performance of food aid, and consultations with DAC members and operational agencies.*

Introduction

This chapter describes the scope of both the *a priori* and factual assessments and highlights the definitions and analytical concepts. First, it briefly sets out the different forms in which DAC members provide food aid. Second, the arrangements and practices of the United States and the EC, the largest donors, are described along with some examples of the practices of donors with relatively smaller food aid programmes. Third, the donor review is complemented by a brief description of the UN WFP through which 49% of global food aid deliveries were channelled in 2003. These descriptions will illustrate the wide range of food aid instruments that are being employed.

The facts-based assessment of the developmental effectiveness of food aid is in two parts. The first issue for consideration is whether food aid is an appropriate resource for supporting longer-term development, given all its distinctive features and inflexibilities. The volatility of food aid flows and related uncertainty about future levels, even in the short term, are widely recognised problems. There has been a resurgence of concern about implications for food aid policy – of resource uncertainty sparked by apparently increasing volatility during the last decade. The facts of food aid resource uncertainty and responses to this problem need to be taken into account in attempting to form an overall assessment of the developmental effectiveness of food aid. Therefore the nature of food aid volatility is briefly set out through a statistical analysis of food aid flows.[1] The ways in which institutions have responded to resource uncertainty are then distinguished, including making the "second best" argument for making use of the opportunity offered by food aid being partially additional to other forms of development assistance.

The second part of the investigation provides a review of the evidence from evaluations and research on the developmental effectiveness and impacts of food aid. The review of evidence is organised to reflect current aims and practice of donors and agencies in providing food aid with multiple aims. The greater part of food aid is being provided as *emergency assistance* in a crisis or post-crisis context with a combination of humanitarian and economic objectives; as a *social safety-net* for vulnerable and poor people and, often simultaneously, as a contribution to longer-term development through asset creation and human capital formation. It only summarises the assessment of longer-term development effectiveness. The fuller version of the literature

review in Annex B is presented in terms of the conventional categories of development food aid, programme aid and various forms of project aid used by donors and food aid agencies. Nevertheless, it should be recognised that these categories are becoming more unsatisfactory because of overlaps in objectives of forms of support being used simultaneously in an emergency context, or as part of safety-nets to protect livelihoods.

Scope of the assessment

Definitions and analytic concepts

Conventionally, food aid includes grants and concessional loans that conform to DAC definitions of ODA. Food aid is categorised and reported, for example, by INTERFAIS, in terms of its *uses* and *modes of supply.*

In terms of the *use of food aid*, three categories are distinguished:

First, *programme food aid* is supplied as a resource transfer providing balance of payments (BoP) or budgetary support. BoP support is given either by replacing commercial imports or allowing additional imports where these are inhibited by foreign exchange (FOREX) constraints. Budgetary support results from the proceeds of commodity sales. This aid is also usually seen as contributing to food security – a generally stated objective of almost all food aid.

The distinguishing characteristic of programme food aid is that commodities are provided directly to a recipient government, or its agent, for sale on local markets. Local currency generated from the sale *may* be used to establish a counterpart fund, with some form of agreement between the donor and recipient about its management and use. Typically, there is some form of "conditionality" or policy framework associated with the provision of aid, either on a single action or multi-annual basis.

Second, *project food aid* is usually provided to support *specific* poverty alleviation and disaster prevention activities, targeted on specific beneficiary groups or areas. The commodities are provided on a grant basis and are usually channelled through a multilateral agency, almost invariably WFP, or through international NGOs. There is a need to distinguish two forms of project aid: *i)* projects that provide food for *direct distribution* to beneficiary groups through mother and child health (MCH) or school feeding programmes (SFP) and as food-for-work (FFW), and *ii)* commodities that are supplied for sale, *i.e. monetisation,* and the local currencies generated used to promote a wide range of poverty reduction and food security within an agreed budgetary framework.

Monetisation is, from an economic perspective, analytically indistinguishable from programme aid. The formal distinction is one of

channel (*indirect aid* through an NGO or multilateral agency), and usually more specification of the use of the funds. In practice, the distinction between programme food aid and monetised project food aid is often one of scale and channels. Bilateral assistance to government agencies is categorised as programme aid, whereas monetisation is usually associated with more specifically defined off-budget uses through NGOs. Project aid is usually on a smaller scale. The average size of programme action surveyed during 2002/03 was 25 585 tonnes and the estimated aid cost to the donor was USD 5.8 million, whereas the average size and cost of direct aid project actions for monetisation was 10 046 tonnes and USD 3.1 million and project actions for direct distribution was 2 163 tonnes and USD 867 000. Note that this report refers throughout to tonnes or metric tonnes. Project actions are also more likely to be marginal in relation to the total supply of commodities in the recipient economy.

Third, *relief food aid* is targeted on, and freely distributed to, victims of natural or man-made disasters. Originally, relief aid was seen primarily as immediate, life-saving humanitarian assistance. However, where disasters threaten longer-term livelihoods of affected groups and the wider developmental process, relief aid has commonly been supplied within a wider framework. It may be combined with programme food aid or other forms of import support for the affected economy. This category has also been extended to include continuing humanitarian assistance, including support for rehabilitation and reconstruction activities, which WFP categorises as Protracted Relief and Recovery Operations (PRROs).

In practice, there has been a blurring of the distinctions between different categories of use, especially in an emergency, crisis situation. The uses of relief aid commonly involve the free distribution of food through MCH clinics and schools and may include FFW. Relief aid on a large scale can have BoP and budgetary implications for the recipient country. Without the relief, they would otherwise have to fund assistance from their own or other external sources, including borrowing. Programme aid has been used as a crisis measure to resource the subsidised sale of foods such as maize meal in southern Africa. Some commentators now distinguish between relief provided as immediate and direct post-disaster aid and humanitarian assistance, which is continuing, and which is intended to support rehabilitation.[2]

The other main approach to distinguish food aid is by looking at its *sources* or *modes of supply*. The source of food aid is critical, especially in the context of a review of the consequences of food aid tying. In INTERFAIS food aid is reported as shipments or actions involving specific physical quantities of food *delivered* to a recipient country or *acquired* within that country with funds provided by an official donor agency or international NGO. All these transactions are distinguished by supply mode in three sourcing categories:

i) *direct transfers* – including all food aid originating from a donor country; ii) *triangular transactions* – food aid purchases or exchanges in one developing country for use as food aid in another country; and *iii) local purchases* – procured in a country and used as food aid in the same country. As discussed in more detail in Chapter 2, direct transfers are broadly equivalent to *tied aid* according to DAC definitions.

At the same time, food aid as a form of ODA resource transfer needs to be distinguished from *food-based programmes* (FBP) or interventions undertaken by governments and NGOs in developing countries. These food-based interventions take various forms: *the direct distribution of food*, such as FFW or SFP, which provide either take-home food or school meals, or market interventions, such as food price subsidies; and *financial transfers,* such as food stamps. FBPs are *funded* largely internally, as in India or Mexico, or *supported* by internationally-sourced food aid and financial aid, as in Bangladesh or Ethiopia. The scale of FBPs is declining throughout most of the developing world with liberalisation of internal markets and international food trade.

Local purchases, if funded on a significant scale by the donor with FOREX, can have potential BoP implications. Such qualifications need to be borne in mind in considering the statistical evidence presented in the section on *Food aid: An appropriate resource for development?*, which analyses food aid flows in terms of the broad categories of use, and, second, in considering evidence on actual uses of food aid in the section *The developmental effectiveness of food aid: key research findings from the literature.*

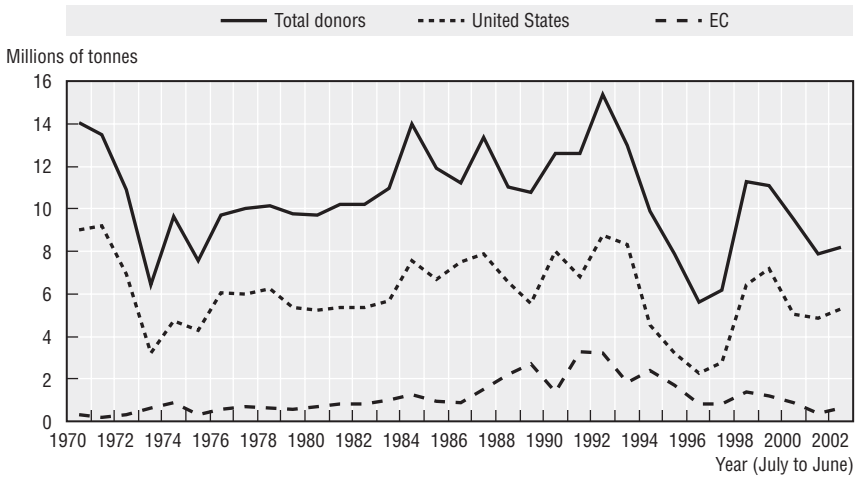
A priori assessment of members' programmes

Bilateral food aid typically involves at least development, humanitarian and agricultural ministries or agencies. These relate to international bodies and NGOs, as well as individual recipient countries. The arrangements of the two largest bilateral donors, the United States and the EC, illustrate the complexity and coherence problems of food provided as commodity aid. They also confirm a long-term downward trend in the relative importance and, since the early 1990s, absolute value of food aid (OECD, 2003). This downward trend is shown in terms of cereal food aid in Figure 1.1.

United States

US foreign food aid programmes have historically been larger and more complicated than those of other food aid donors. These programmes are the result of half a century of legislation and administrative regulations, which in turn are the outcomes of domestic and international agricultural, budgetary, trade, development, humanitarian, and political determinants. The physical and fiscal dimensions of, and trends in, this 50-year USD 68 billion (cumulative)

Figure 1.1. **Total US and EC food aid shipments, 1970-2002**



Source: FAO and WFP INTERFAIS.

programme are the outcomes of a continuous process of balancing the competing demands of a large number of interests reflecting farmers, value-added food processors, transporters, commodity interest groups, and a number of voluntary organisations (NGOs) promoting humanitarian or development objectives.

The US provides food aid on the basis of six distinct programmes: PL480 Titles I, II, and III; Food for Progress; Section 416(b) surplus commodity distribution; and the recently enacted McGovern-Dole Food for Education and Child Nutrition (FECN) programme. These programmes are summarised in Table 1.1. The legislative mandates guiding these activities were most recently authorised (or, in many cases, "re-authorised") as part of the 2002 "Farm Bill",[3] or exist in provisions of permanent agricultural legislation, notably Public Law 480 of 1954. The next Farm Bill is scheduled for 2007.

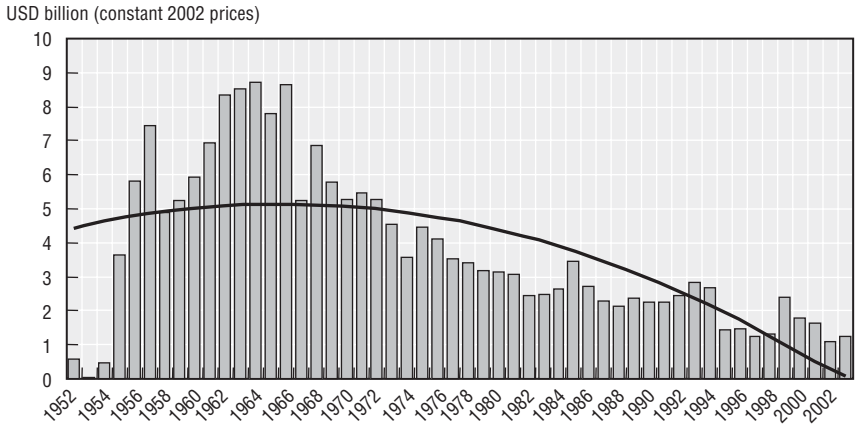
Overall, the value of US food aid has steadily declined since the peak era of the 1960s (Figure 1.2). The recent and projected levels of funding are shown in Table 1.2. PL 480 is the more stable element; especially Title II with the USDA managed programmes, whereas S416b is used to cushion periodic fluctuation in the availability of specific commodities. Funds for management of food aid activities are contained in the USAID and USDA annually appropriated budgets and in Section 202(e) of PL480 Title II which covers a portion of the management costs in recipient countries of US NGOs and WFP related to the implementation and monitoring of food aid activities.

Table 1.1. **Summary of US food aid programmes**

Programme	P.L. 480 Title I	P.L. 480 Title II	P.L. 480 Title III	Food for progress	Food for education and child nutrition	Section 416(b)
Managing agency	USDA	USAID	USAID	USDA	USDA	USDA
Programme structure	Concessional sales of agricultural commodities	Donations of commodities to meet emergency and non-emergency needs. Commodities may be sold in recipient country for development purposes.	Donation of commodities to least developed country governments which are making good development progress.	Donation of food commodities to eligible developing countries; commodities from Title I, 416(b) or CCC stocks.	Donation of commodities and provision of financial and technical assistance in support of educational and nutritional objectives in poor countries.	Donations of CCC surplus commodities to carry out purposes of P.L. 480 Title II and Title III or Food for Progress programmes.
Intermediaries	Governments, private entities	Governments, public or private entities, NGOs, cooperatives, intergovern-mental organisations (primarily WFP)	Governments	Governments, agricultural trade organisations. Intergovern-mental organisations, NGOs, cooperatives.	Governments, private entities, intergovern-mental organisations.	Same intermediaries as Title II and Food for Progress.

Source: Modified from USGAO, 2002.

Figure 1.2. **Trend in US food aid levels, 1952-2003**



Source: USAID. Overseas Loans and Grants and Assistance from International Organisations: Obligations and Loan Authorities, 1 July 1945-30 September 2001. Data for 2002 and 2003 are from USDA/FAS.

Table 1.2. **US food aid programme funding FY 1996-FY 2004**
USD million

Programme	1996	1997	1998	1999	2000	2001	2002	2003[a]	2004[a]
PL480	1 207	1 054	1 138	1 808	1 293	1 086	1 270	1 944	1 326
FECN[b]	–	–	–	–	–	–	–	–	50
Section 416 (b)	0	0	0	1 297	1 130	1 103	773	175	151
FFP	84	91	111	101	108	104	126	158	151
Total	**1 291**	**1 145**	**1 449**	**3 206**	**2 531**	**2 293**	**2 169**	**2 277**	**1 678**

a) Data for 2003 and 2004 are estimated.
b) FECN as a pilot experimental programme was funded during 2000-2003 under S416b.
Source: Hanrahan, 2004.

The US situation is complex, but relatively transparent. This is because its government structure involves a strict division of powers that requires the executive to have a detailed legislative basis for its actions, and to be able to account to Congress for every dollar afterwards. The landmarks in US food aid are therefore the intensively negotiated Farm Bills. The details of the legislation reflect lobbying that effectively ties food aid to US exportable surpluses, so that 50% should be processed or bagged to increased domestic value added before shipment. However, the legislation also allows NGOs to "monetise" over one-third of commodities and use the proceeds for development projects. Separate legislation requires 75% of food aid managed by USAID (including that for relief purposes) and 50% of that managed by USDA to be shipped in US-registered vessels (USGAO, 1994).

European Union

The EU in effect has 16 separately funded food aid programmes, one for the EU as a whole, managed by the European Commission (EC), and one each for the 15 Member States prior to 2004. The 16 programmes form a single collective contribution to the Food Aid Convention and the arrangement for distribution of responsibilities amongst the Member States and the Commission underpins the community and national programmes. There are also extensive liaison and management arrangements, covering NGO involvement particularly, on the part of the EC. This complexity has led to considerable operational problems, and there has been periodic reorganisation of aspects of these programmes.

Possibly the most important long-term adaptation in food aid from the perspective of this study has been the greater flexibility allowed in the use of finance to be provided for food aid. This is reflected in the growth of triangular transactions and local purchasing since the early 1980s. Changes in Food Aid Convention rules facilitated such flexibility over sources.

The 1996 EU Regulation on Food Aid is the most significant development in this direction, allowing for the use of food aid budget lines to provide conventional food aid, FOREX facilities for recipient governments restricted to food importing, and financial aid for food security. The Regulation takes the viewpoint that food aid in kind can be justified in specific cases where there is no alternative. In other cases, it can provide a FOREX facility under which aid funding is to be channelled to private sector operators who import food from the European market or an EC-determined shortlist of eligible developing countries.

The FOREX facility is a hybrid of BoP support with conditionalities and aspects of aid tying. As the survey results in Chapter 2 confirm, a substantial proportion of EU food aid continues to be sourced within the single market (Table 2.1). There has been a substantial reallocation of funds to non-food aid (Table 1.3). Initial evaluations of aid under the 1996 Regulation were ambivalent (NRI, 2000; European Court of Auditors, 2003) but a full evaluation on behalf of the EC in 2004 was broadly positive (PARTICIP, 2004).

Table 1.3. **EU expenditure under the food security and food aid budget 2002**

	Direct aid		Indirect aid		Total aid	
	Euros	%	Euros	%	Euros	%
Food aid and transport costs	156 350	54	112 400	53	268 750	54
Other support	101 340	35	88 541	42	189 881	38
Currency provision	30 400	11	9 850	5	40 250	8
Total	**288 090**	**100**	**210 791**	**100**	**498 881**	**100**

Source: Adapted from European Commission estimates.

Other DAC member programmes

A description of the 15 national EU programmes and those of other DAC members is beyond the scope of this study. However, the OECD study on export competition issues related to food aid includes a survey of members' programmes (OECD, 2003). The only comparative study on European donors was restricted to programme food aid (Clay *et al*., 1996). That study highlighted the range of practices amongst European donors in organising their food aid and policy priorities. For example, some EU members provide only or almost entirely humanitarian aid (*e.g.* Sweden) whilst others provide development project aid through WFP and NGOs (*e.g.* Germany) and yet others provide bilateral programme aid (*e.g.* France and Italy).

There are, as INTERFAIS and the survey undertaken as part of this study confirm, large differences between EU donors in the sourcing of commodities for food aid. Belgium, Germany, Sweden, the Netherlands, and the United Kingdom, for example, largely source their food through local purchases and

unrestricted tendering. On the other hand, Denmark, France and Italy largely source their food assistance from EU markets, and in some cases national suppliers. Restricted sourcing from donor markets appears more likely for development food aid channelled through the WFP (*e.g.* Denmark and Finland) than emergency aid.

World Food Programme

The WFP is the main international channel for food aid, accounting, in 2003, for 49% of delivered commodities. WFP was established in 1963 to provide food aid to development projects through its Regular Programme, as well as a modest amount of emergency aid. Large-scale humanitarian assistance has been provided since 1977 through the International Emergency Food Reserve, and humanitarian assistance for Protracted Refugee and Relief Operations (PRROs) since 1991. The PRROs have since become Protracted Relief and Recovery Operations with broader developmental implications. WFP, in co-operation with UNHCR, is the main source for refugee food assistance.

WFP has evolved from a joint UN/FAO programme into an international food aid agency, confirmed by changes to its regulations in 1992. It is underpinned by the Food Aid Convention (FAC) because many donors commit part or all of their obligations to provide food aid to WFP relief and regular (development) activities. It has been responding to a larger but variable relief responsibility and cuts in development resources, by attempting reorientation. These changes have included phasing out of some country programmes, especially in middle income, less food insecure countries.

A picture of the balance of WFP operations according to different programmes is provided in Table 1.4. Relief operations have been increasing whilst also reflecting immediate crises-related responses, with resources largely directed by DAC donors. Development activity under the Regular Programme has declined by about half. Both relief and development activity also show some sensitivity to donor supply influences, including the low levels of expenditure in 1996 and a surge in expenditure in 1999, both of which are considered further in the section below "Food aid: an appropriate resource for development?".

Food aid: an appropriate resource for development?

Introduction

Food aid flows are volatile and highly sensitive to agricultural and trade-related influences in donor countries. So, potentially food aid availability is extremely uncertain in the short-term and less assured than other forms of development assistance which are based on financial appropriations and multi-annual budgetary commitments. These characteristics of food aid pose

Table 1.4. **WFP operational expenditure by category, 1989-2003**
USD million

	Development	Relief	Special operations	Trust funds/ bilaterals	Other[b]	Total
1989	499.5	258.1	0	0	0	757.6
1990	498.6	261.3	0	166.2	0	926.0
1991	487.8	586.3	0	252.7	0	1 326.7
1992	469.7	868.1	0	234.1	0	1 571.9
1993	398.4	865.8	0	217.3	21.6	1 503.2
1994	311.5	873.5	0	207.7	20.3	1 413.0
1995	340.8	613.9	0	141.6	0.2	1 096.7
1996	279.1	737.7	18.5	31.1	11.0	1 077.3
1997	332.7	704.3	20.6	15.7	–0.9	1 072.4
1998	254.3	915.4	34.1	26.7	6.8	1 237.3
1999	246.4	1 089.3	34.1	55.4	4.3	1 429.6
2000	185.0	920.3	25.9	19.7	7.4	1 158.3
2001	231.1	1 421.4	32.2	45.8[a]	46.1	1 776.4
2002	194.7	1 282.8	36.7	38.6[a]	39.4	1 592.2
2003	228.7	2 811.4	82.8	80.5	72.0	3 275.3

a) Bilaterals only.
b) Operational expenditures such as general fund, insurance and, from 2001, trust funds that cannot be apportioned by project/operation.
Source: WFP, *Annual Reports*.

a challenge to those seeking to utilise this distinctive resource and co-ordinate their other development co-operation activities with it. This fundamental uncertainty about food aid as a resource for supporting longer-term development raises questions about its appropriateness and is also a factor in explaining past food aid performance.

This section reviews these issues of resource uncertainty through a brief statistical update on the issues of volatility and resource uncertainty, reporting research findings on the relationship between needs and availability, a description of the ways in which donors and agencies have sought to manage and reduce resource uncertainty, including treating food aid as an additional, but "second best", resource.

An uncertain resource?

Food aid is subject to two major sources of uncertainty on the donor side. First, there is the general uncertainty of aid that is dependent on donor priorities. The long-term decline in the relative importance of food aid within overall ODA, from over 20% in the mid 1960s to below 5% since the mid 1990s, reflects a change in priorities on the part of DAC members. The unilateral decisions of some donors to reduce their commitments under the Food Aid

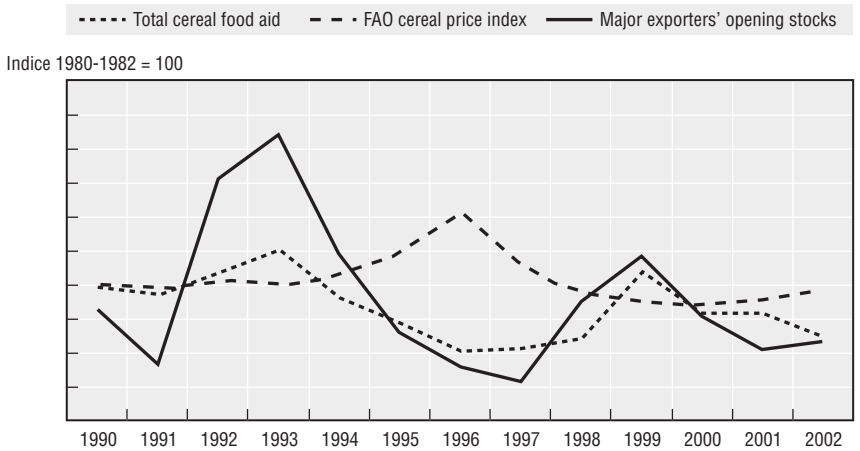
Convention in the 1990s, and the EU in 1996 to allow the use of cash from food aid budget lines in support of food security, indicate a continuation of that trend. There are also new donors outside of the DAC whose assistance is contingent upon specific circumstances but comprises a substantial part of global food aid. China and South Korea have provided assistance to the People's Democratic Republic of Korea (PDRK), and India offered one million tonnes of surplus grain for famine relief in 2002.

The second source of uncertainty, and specifically to food aid, is the strong connection between the agricultural supply situation in OECD donor countries and international market conditions. There is a widely recognised and continuing link between the actual disbursements, or deliveries, of cereals food aid and international grain prices and exporter levels of stocks (Figure 1.3).[4] As a consequence, there are large fluctuations in food aid levels and its significance within donor aid expenditure. For example, US food aid (over half of total global food aid) has fluctuated between 10% and 17% of US foreign assistance since 1995.

In addition, there is also some evidence that food aid levels overall have become more uncertain. There is a widely recognised, and so partly predictable, relationship between grain prices and food aid shipments that FAO used, for example, to provide provisional estimates of food aid. However, this relationship appears to have weakened.

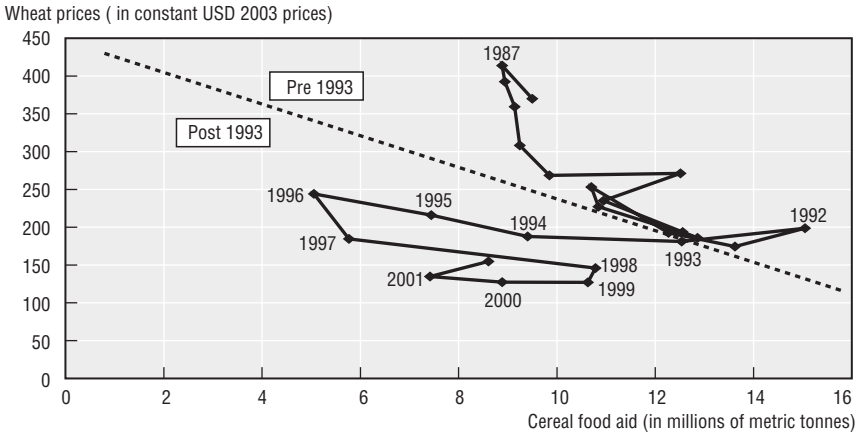
Figure 1.4 presents the relationships between global cereals aid deliveries and international wheat prices from 1976 to 2002. This figure suggests a

Figure 1.3. **Relationship between cereal food aid, prices and stocks, 1990-2002**



Source: FAO.

Figure 1.4. **Linked scatter plot of wheat prices and cereal food aid, 1976-2002**



Source: FAO.

change in the structure of the relationship between supply-side influences and food aid in the period since 1993, coinciding with the completion of the Uruguay Round and the Marrakech Accord relating to agriculture. Food aid levels appear to have become both more volatile and less clearly influenced by prices.

This issue of the apparent increased uncertainty of food aid merits further investigation. A possible factor was the reduced levels of Australian, Canadian and EU food aid in the late 1990s, as these were relatively less sensitive to short-run grain market influences than US food aid. There is also a smaller proportion of food aid being shipped as wheat. A simple statistical analysis of the lagged relationship shown in Figure 1.4, incorporating a dummy variable to reflect the pre- and post-1993 trade regime and associated tests, are consistent with this hypothesised change. More systematic research has been undertaken as part of the OECD study (2003).

Responsiveness to needs

Need appears to have little influence on the overall availability of food aid. Studies have repeatedly found that food aid globally is imperfectly targeted in relation to food insecurity and other economic and human development indicators (Merbis and Nubé, 2001). This poor targeting in terms of needs and development goals (MDGs) was reconfirmed up to 2001 in a recent statistical review (Neumayer, 2005).

The so-called "pro-cyclical" character of food aid – its negative sensitivity to grain market conditions – implies that less is available when the import

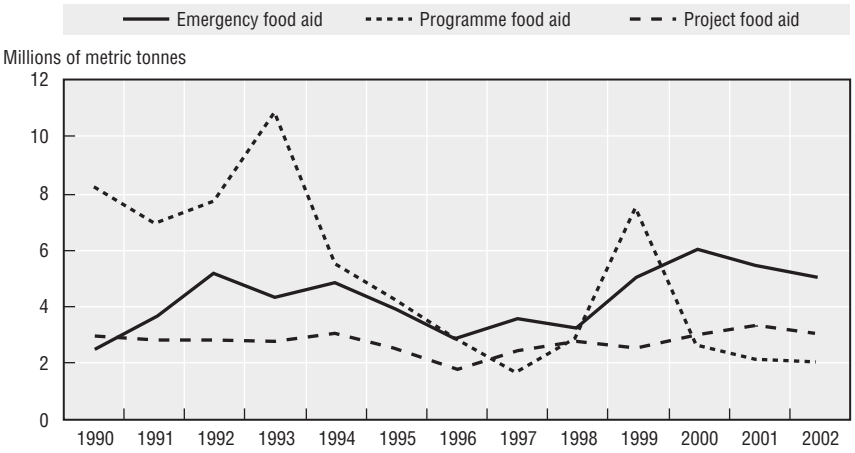
cost pressure on low-income food importing countries is potentially more intense. If there are unanticipated additional but transitory food import requirements in crisis-affected countries, then these have to be met through reallocation within a severely constrained commodity envelope. All categories of food aid have been sensitive to supply influences.

Figure 1.5 shows that emergency, programme and project aid all declined between 1994 and 1996, when there was a severe cereals price spike. Levels then recovered as stocks rose and prices fell in 1999 and 2000, only to decline again with the tighter supply situation in 2001.

Within total global flows there are some significant differences in the allocations of donors and agencies in relation to needs. Barrett (2001) finds that US bilateral food aid is relatively unresponsive to varying recipient country need and is, overall, broadly pro-cyclical. EC food aid is explicitly targeted at a priority group of aid countries (Neumayer, 2005). WFP's multilateral food aid allocations are relatively more sensitive to development indicators and on balance have been counter-cyclical, stabilising availability in developing countries (Barrett and Heisey, 2002).

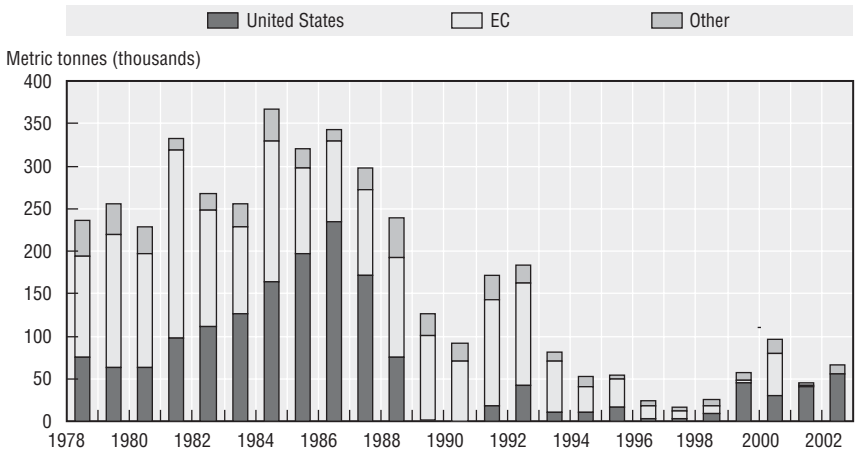
Sensitivity to supply-side influences is not confined to cereals aid. Dairy commodity aid has been highly sensitive to levels of stocks and the ways that they are used to manage surpluses, especially in the EC and the US. Figure 1.6 shows shipments of dried skimmed milk powder (SMP). US shipments have been closely linked to changing availability of surpluses for export. During the 1970s and 1980s the EU provided relatively stable and predictable annual

Figure 1.5. **Volume of emergency, project and programme food aid deliveries, 1990-2002**



Source: WFP INTERFAIS.

Figure 1.6. **Skimmed milk powder food aid, 1978-2002**



Source: FAO.

allocations of SMP from structural surpluses, using other internal instruments to manage fluctuating marginal levels of surplus (Clay and Mitchell, 1983). The combined efforts of EU policy reform in reducing surpluses and the de-linking of food aid from dairy products virtually removed this predictable source of dairy aid during the 1990s. More recently, SMP aid levels have risen again because of availability under a US food aid programme linked to surplus management.

International policy responses

An assessment of the appropriateness of food aid as a resource for development should take into account evidence about how successfully agencies have adapted operationally to the specific uncertainty attached to food aid, and also of the efficiency costs that are involved. The uncertainties and considerable variability in both global availability and in terms of specific commodities provide a difficult and arguably unsatisfactory basis for programming food aid as a development resource.

Development aid requires the assured multi-annual commitment of resources, as well as the flexibility to respond to changing circumstances through the timing and scale of disbursements and the composition of expenditure. This perception is reflected in the ways in which donor agencies have sought to combat food aid uncertainties. In fact, there have been three persistent and distinct international policy responses to food aid resource uncertainty: *i)* assure minimum overall levels of supply; *ii)* insulate uses for specific purposes from variability; and *iii)* avoid reliance on food aid to support key areas of public action.

Assuring total availability has been associated with attempts to obtain donor commitments to guarantee total minimum levels for specific purposes. The 1994 World Food Conference agreed a minimum global annual target of 10 million tonnes of cereals. The International Emergency Food Reserve (IEFR) had an initial minimum annual target of 500 000 tonnes for multilaterally channelled relief.

The Food Aid Convention represents the most constant effort to address the uncertainty issue by setting minimum annual obligations and rules for major cereal exporters and other DAC donors. The FAC set a floor well below annual food aid shipment levels between the mid 1970s and early 1990s. The FAC has since been redefined, becoming more flexible but also arguably weakening the obligations on signatories.

The 1995 Convention included reduced commitments by some donors, reflecting their diminished willingness to commit food aid in the context of the most extreme cereals price spike in 20 years and financial pressures on aid budgets. The group of eligible countries was broadened to include economies in transition that are eligible for ODA under redefined DAC guidelines.

The range of commodities acceptable in fulfilment of obligations has been widened, and financial aid restricted to funding food imports is allowable under the 1999 Convention. The role that FAC plays in reducing uncertainty about food aid levels is becoming less clear. However some donors and agencies providing food aid, including WFP, EuronAid and some NGOs, indicate that the FAC commitments continue to give some predictability in the financial resources committed to funding food aid as well as to commodities.

Insulating specific activities from the wider uncertainty is the second most characteristic strategy to address the problem of resource uncertainty. NGOs and other stakeholders in the US have sought, with some success, to obtain legislative assurance of minimum quantities of food for relief and development project aid under PL480 Title II. A commodity reserve of four million tonnes of cereals was also established to provide further assurance of stability.

The Bill Emerson Humanitarian Trust (BEHT), formerly known as the "Food Security Wheat Reserve", is a legislated reserve of up to four million tonnes of wheat, corn, sorghum, and rice. The BEHT, maintained by the USDA's Commodity Credit Corporation, can be tapped to augment the availability of PL 480 Title II food commodities in serious emergency situations or at times when US domestic supplies are inadequate. The Trust has been used 10 times since it was established (as the Wheat Reserve) in 1980, most recently in 2002.

However, a consequence of assuring Title II is to leave other budget titles to bear the short-term burden of adjustment to financial and commodity availability. In particular, as the US is now the main provider of programme

food aid, that would appear to make programme aid a marginal instrument, with fluctuating, uncertain resource levels to be committed on an annual basis (Figure 1.5).

The WFP has always sought to encourage biennial pledges to its regular development programme. However, the first priority that donors accord to humanitarian relief has contributed to a decline in regular pledging and short-term variability in development commitments since the early 1990s (Clay, 2003). Some donors have sought specific financial authority to make multi-annual agreements of programme aid with beneficiary countries. For example, the EC succeeded during the 1980s in obtaining regulatory changes to allow multi-annual programmes, and then to build further flexibility into these agreements to substitute other food or financial aid, in the light of a changing food situation. These arrangements, which proved difficult to implement, were superseded by the more flexible 1996 regulation (Clay *et al*., 1996).

Food aid has typically been budgeted on an annual basis. This is partly because of the difficulties in predicting the financial consequences of making multi-year commitments in physical terms. There is also the link to internal agricultural market management that, for example in the US, draws on unappropriated funds. The S416(b) food aid programme that draws on temporarily available surplus commodities is financed from unappropriated Commodity Credit Corporation (CCC) funds, whereas PL480 is budgetarily appropriated in advance, helping to explain sensitivity of aid volumes to price movements (Table 1.2).

The increasing priority accorded by the international community to humanitarian crises implies that some countries and some development activities are likely to be *excluded* whilst others are marginalised within the food aid system. The effects potentially include temporary disruption or abrupt termination of programmes when resources are scarcer, as in 1995-96, or when there is an unforeseen international emergency, as in 2003. There may also be temporary expansions of existing programmes and single actions, as in 1999. The effects of fluctuating and uncertain sourcing are likely to be reflected, but not necessarily isolatable, in the evidence of performance. If the problems of resource uncertainty are becoming more severe, then these may not be adequately reflected because of lags in the evaluation process. The review of the literature undertaken as part of this study suggests that there is a need to recognise more explicitly, and to examine carefully at recipient country and operational level, this difficult aspect of food aid programming which has potentially negative consequences for effectiveness.

A statistical analysis of food aid flows to the 15 recipient countries included in the study of cost effectiveness (Chapter 2) indicated considerable variability in the levels of all the three main categories of food aid in almost all

cases. However, it was beyond the scope of the study to establish the sources of this variability and its consequences. Such an investigation would require in-depth country-level research.

Food aid variability and resource uncertainty also have potentially significant implications for third countries. For example, there are substantial, often short-term changes in the levels and sources of food aid through regional markets in sub-Saharan Africa, which are also relatively thin and sensitive to weather-induced fluctuations in production.

Additionality: opportunities and challenges

Two common and related counter arguments to the difficulties of utilising food aid as a resource for development are posed by variability and resource uncertainty. First there is the argument of additionality. It is frequently asserted that food aid is at least partially additional to other ODA. For example, "Food aid remains an additional resource, in that donors would not provide equivalent cash development assistance in place of the food. This is *particularly true* of those donors who continue to tie their food aid closely to their own farmers, *i.e.* Australia, Canada, Japan and especially the United States, the largest donor" (Hoddinott *et al*., 2003).

Some argue that saving lives may be worth the extra cost of tied food aid in emergencies because untying food aid will affect its availability. Their concern centres on the difficulty some donors might have in providing untied food aid (*e.g.* Marchione, 2002). Therefore, food aid is seen to provide an opportunity to use these extra resources, though acknowledging challenges of making use of this inflexible resource (Singer *et al*., 1987; Hoddinott *et al*., 2003).

A second more circumscribed statement of presumed additionality is that food aid is, in the short term, potentially an additional resource for specific agencies and programmes. These agencies have an opportunity to make the most effective use of what is for them an additional resource, for example, through monetisation, using local currencies to support poverty reduction and food security projects (Tschirley and Howard, 2003). Others argue that food aid provides considerable benefit in directly reducing the hunger of marginalised or crisis-affected populations often by-passed by other types of assistance (WFP, 2003b). The careful balancing of benefits against costs incurred by this "second best" resource is needed, because economic theory suggests that financial aid is, in general, preferable to tied commodity aid (Reutlinger, 1999; Abbott and McCarthy, 1982).

Again it is beyond the scope of this study to investigate the evidence of the asserted overall additionality of food aid. However, statements by stakeholders about the additionality of what they are doing should be treated with certain scepticism. When the claims that food aid to Eastern Europe and

the former Soviet Republics between 1989-90 and 1993-94 was additional, they were subjected to careful scrutiny and it was found that 10-12 million tonnes of cereals food aid, about 20% of shipments, was diverted from developing countries (Benson and Clay, 1998).

Clearly the second restricted form of additionality is a likely consequence of a donor directing that some proportion of its aid should be provided as food, as is implied by FAC obligations, or by a donor tying some aid by source to food from its domestic market. The appropriateness of such practices rests on a careful factual assessment of the comparative effectiveness of food-based interventions or development funded by food aid and the actual efficiency costs associated with providing commodity aid, whatever the source and the practices of aid tying.

The developmental effectiveness of food aid: key research findings from the literature

Introduction

The wealth of evidence from evaluations, audits and studies during the 1990s narrowed, if not entirely settled, the controversy surrounding the effectiveness of interventions using food to promote food security and poverty alleviation, and of food aid as a form of resource transfer to support these interventions. Most independent reviews of food-aided development activities ranged from being guardedly positive (*e.g.* Ruttan, 1993; CMI, 1993) to being, on balance, negative (Merbis and Nubé, 2001; Pillai, 2000). Subsequent reviews rely largely on the same body of evidence extensively quoting earlier studies (*e.g.* Barrett, 2002; Hoddinott *et al.*, 2003).

The literature sometimes focuses on the role of all food aid and, frequently in the case of evaluations, on specific categories of use or institutional modalities, such as relief or project aid. These categories are, it will be suggested, in many ways unsatisfactory in the light of recent agency practice for responding to emergencies. This part of the assessment, therefore, considers first the broader issues concerning all food aid and, second, the longer-term impacts of the different categories of development food aid, drawing eclectically on all forms of evaluation and research evidence.

The following section is structured as follows. First, the issue of emergency food aid is addressed. The greater part of food aid has come to be provided in the context of, and in response to, emergency and crisis situations, and so an important issue is the developmental implications of this aid provided with a mix of objectives, including humanitarian relief, protecting livelihoods and economic stabilisation. Second, a range of long-standing issues relating to the effectiveness of food-based safety-nets are elaborated. Third, the contribution that food aid interventions make to economic growth and development are

discussed. Fourth, the links between food aid and the development of the agricultural sector in the recipient country are analysed. Fifth, the effects of food aid on consumer preferences are looked at. Next, development programme aid and development project aid are considered from a longer-term developmental perspective. Finally, food aid is compared to financial aid.

Emergency food aid, shocks and crises

Food aid is frequently part of the international response to a national or economy-wide extreme crisis. These crises pose an immediate or imminent threat to lives, livelihoods, short-term stability and longer-term development. The assistance provided in response to such crisis situations, outside of an already planned development framework, should all be considered as emergency food aid. The formal relief category is restricted to grant aid provided for free distribution through food-based interventions. However, in an urgent situation, donors, recipients and intermediary agencies now co-operate to organise the most effective response using whatever resources are most quickly available. In major regional crises, such as those in southern Africa in 1991-93 and again in 2002-03, assistance under all categories of food aid is commonly reassigned in response to the crisis. Also, funds under other aid modalities may be reallocated or committed for financing food imports and related relief operations and food-based interventions such as temporary subsidisation of food prices.

The broad conclusion of retrospective evaluations is that the international community, in combination with governments of affected countries and civil society organisations, has become more effective in containing human suffering and limiting the developmental impacts of disaster shocks on livelihoods of affected people and the wider economy. Emergency aid plays a clear and crucial role in saving lives and limiting nutritional stress in acute crises caused by conflict or natural disaster. A recent survey based on 18 evaluations during 2000-01 found that: "The reports tell an encouraging story of food aid interventions in many countries meeting their primary objective of feeding the hungry. There is a generally positive view that food assistance is saving lives and, in a significant majority of cases, maintaining or improving nutritional status" (ALNAP, 2004).

However, there is frequently a lack of robust evidence quantifying its positive impact. That is partly a consequence of the difficulties of retrospective assessment of relief operations lacking benchmarks and with weak monitoring. This deficiency, to which attention was drawn in evaluations of crises in the early 1990s in southern Africa and Rwanda, is being partly rectified by the acceptance of the practice of real time evaluation (ALNAP, 2004; WFP, 2003a).

There are many reported shortcomings in these crisis responses, the significance of which should not be minimised. For example, there is some evidence of late-arriving, inflexible relief not allowing a switch from imports to local purchases hampering the recovery of local economies affected by natural disaster. This problem, highlighted in the 1980s, gave rise to efforts to establish the code of good conduct for the Sahel group of countries. Similar problems were again reported from southern Africa in the 1990s, *e.g.* Tschirley *et al*. (1996) for Mozambique. Such shortcomings indicate the need for strengthening assessment, better co-ordination and co-operation.

There is much that is problematic about emergency food aid and its short-term effects concerning the specifics of particular modalities of assistance. There are serious inflexibilities that are partly institutional and partly associated with aid tying. The restricted basket of commodities available as emergency aid reflects tying and creates difficulties in providing socially and nutritionally appropriate rations (Shoham *et al.*, 2000; Marchione, 2002). The controversy about US-sourced GM maize in southern Africa in 2002 has highlighted the political sensitivities in recipient countries – even in crisis – that can disrupt distribution plans, and costs that can arise from donor inflexibility on sourcing (Hansch *et al.*, 2004). Tying practices are considered more fully in Chapter 2 in the section entitled "Findings".

The longer-term development implications of periodic, large-scale emergency food aid are only beginning to be systematically examined. A recent study concludes that large-scale food aid operations to meet short-term deficits in drought affected countries in sub-Saharan Africa in the early 1980s and early 1990s were important in preventing destabilising effects of covariant shocks on largely agricultural economies. Food aid thereby contributed to sustainable agricultural development (Abdulai *et al.*, 2004).

The complementary roles of food aid and large-scale commercial imports in crisis management also need to be taken into account. For example, in the 1991-93 drought crises in southern Africa large-scale commercial imports were organised and arrived more quickly than food aid and so played the key role in averting a regional crisis (SADC, 1993). These commercial imports were largely aid-funded in Zambia and Zimbabwe and domestically financed by Botswana and, on the most massive scale, by South Africa. Allowing the private sector to respond to rapidly changing market conditions through commercial imports and stock adjustments, as in Bangladesh after the floods in 1998, limits the need for potentially destabilising increases in public expenditure (Del Ninno *et al.*, 2001).

The broadly positive effects of food aid as an emergency response are typically found to be combined with considerable "messiness", incoherence and ineffectiveness in the short-term response to crises (ALNAP, 2004; WFP,

2003a). These issues are more appropriately considered in relation to specific modalities such as relief, programme and project aid types.

Thus, emergency food aid should be seen as a second-best option, not the first line of response to a crisis. Balance of payments support for exceptional FOREX costs and budgetary support for domestic crisis measures are potentially more flexible and cost-effective. Where there are well-functioning internal markets and trade linkages, then preferable responses are the financing of public imports through the commercial sector, and allowing the private sector to respond to rapidly changing market conditions. The international response should be sensitive to the specifics of the options that are practically available, the social and economic environment and governance in the affected country.

Food aid as a safety-net against poverty and disaster risks

Food-based interventions have been widely used to provide public social safety-net systems. The safety-nets have, broadly, two overlapping functions: as a form of income transfer or subsidy in consumption to chronically poor households, and in protecting households from slipping further into poverty through the disruption that shocks have on livelihoods. In practice all the forms of food-based programmes supported by food aid are likely to become part of the response to a disaster or shock.

The evaluation evidence confirms that these interventions sometimes, depending on the specifics of the local context, have a role in limiting suffering and the damaging impacts of a shock on livelihoods. However, the effectiveness of improvising a crisis response through what are primarily development-oriented interventions can be overstated. Where interventions are in place, these can contribute to a more rapid, thus usually timelier, crisis response. However, there are likely to be targeting problems because of the inflexibility of geographical coverage and beneficiary selection at a household level.

For example, the geographical concentration in Ethiopia of food-based social protection programmes, including both free distribution and FFW, prevented the effective targeting of emergency assistance (Clay *et al.*, 1999). Even where the objective of a school feeding project in low-income countries is to raise enrolment and attendance, children from the poorest and most vulnerable 10% of households are very unlikely to be enrolled (Bennett, 2003).

Food aid and national economic development

The problem of evidence is most acute when attempting to establish anything substantive about overall impacts of food aid on growth and long-term economic development. There are positive "narratives" and case studies

stretching back to the Marshall Plan and post-war reconstruction in East Asia. The most convincing review of such case studies remains Isenman and Singer (1977), covering the period up to the early 1970s, when food aid flows were relatively large in relation to both trade and aid. There are also negative narratives, often about countries in political crisis or performing badly economically.

Statistical investigations typically find weak relationships in cross-section between aid and short-term economic growth performance. However, a recent study that disaggregates aid finds that emergency and humanitarian aid, including all food aid, is negatively, but not significantly, correlated with short-term growth (up to four years).

In contrast, there is a significant association between aid for budgetary and BoP support, investment in infrastructure and productive sectors and economic performance (Clemens *et al.*, 2004). This finding is consistent with statistical and case study evidence that food aid is being directed largely as transitory support, especially for relief and safety-nets in crisis-affected, poorly performing countries.

Relatively large-scale food aid has been almost invariably programme aid, unless governance problems dictate providing relief through intermediary channels, as in Ethiopia in the 1980s and to the PDRK. So these economy-wide issues should be considered in relation to these specific forms of aid. The few recent quantitative investigations into the wider effects of food aid largely reconfirm earlier conclusions on unsatisfactory programming in relation to assistance needs, and are inconclusive, indicating marginally positive or negative development impacts.

Food aid and agricultural development

Earlier, more systematic literature reviews have typically found that the evidence is inconclusive about either direct disincentive impacts on markets and production or indirect effects through policy dependency on budgetary support (*e.g.* Clay and Singer, 1985; Maxwell, 1991; Clay *et al.*, 1996). Much of the evidence is "narrative", whether positive or negative, or based on partial analysis of relationships between agriculture, food production and (aided) imports. Many of the reported examples of disruptive effects on local agriculture are also, as noted above in the section "Emergency food aid, shocks and crises", often associated with a post-crisis situation in which already programmed, but late-arriving, emergency food aid is seen to impede agricultural recovery.

Where the scale of resource transfer is significant, the outcome of modelling suggests that the economic impacts, including the indirect effects of growth on consumer demand for food, can be, on balance, positive (Clay

and Singer, 1985). This finding is reconfirmed in a recent regional study in Ethiopia (Hoddinott, 2003). However, the narrative evidence should not be lightly dismissed as only "stories". Some positive impacts of pilot and small-scale projects are reported, funded by food aid sales (*e.g.* Bonnard *et al.*, 2002; Howard, 2000).

The negative developmental effects of food-based interventions on agriculture and rural communities are also a persistent theme in the reports of development professionals and relief workers working closely with agriculturalists, and in poor rural communities. These highly critical professional judgements raise serious issues about the actual practicalities of food aid use and the effectiveness of specific food aid modalities (Timmer, 2003).

Food aid and recipient food preferences

A persistent criticism is that food aid changes consumer preferences, altering the structure of demand in favour of imported foodstuffs. The rapid processes of urbanisation and growth in non-agricultural employment is also associated with changing consumption patterns, so it is difficult to isolate the changes in food consumption which are attributable to food aid.

The expansion of wheat consumption in Bangladesh is commonly cited as an example of changes initially linked to subsidised sales and direct distribution of food-aided commodities (Chowdhury and Haggblade, 2000). The specific patterns of growth in cereal and vegetable oil consumption, production and imports are other possible effects of food aid.

Export promotion and market development have been explicit objectives for some US food aid modalities. A recent study found that food aid is associated with a longer-term increase in imports by beneficiary countries of commodities provided as US food aid. Other exporters as well as the donor gain in an increasingly liberalised international trade from this market development effect of food aid (Barrett *et al.*, 1999).

There would appear to be an undesirable trade-off between the market development objectives of OECD member countries and MDGs in the case of some aid modalities and in the selection of commodity aid. This is particularly true in the case of low-income and poorly performing economies, with continuing BoP constraints on development.

Programme food aid

There are issues of longer-term effectiveness that are specific to the different modalities of development food aid. The literature indicates a different balance of conclusions with regard to the two main forms of food aid for development, programme and project assistance, the conventional

classifications of development food aid which are summarised in this section for programme aid and the following section for project aid.

Programme food aid has declined following a sequence of critical and unsupportive evaluations and reviews in the mid-1990s that highlighted a combination of ineffectiveness and poor transfer efficiency (Clay *et al.*, 1996; CIDA, 1998; AusAid, 1997; McCelland, 1997).

There is a lack of evidence on more recent programme aid performance. The US as a major donor made its largest-scale commitments as temporary assistance to stabilisation in countries coping with economic shocks and political crises rather than funding longer-term development.[5] The findings of the evaluation of EU provision of FOREX support under the 1996 Regulation is awaited, although interim assessments raised concerns about effectiveness (NRI, 2000; European Court of Auditors, 2003; Merbis and Nubé, 2001). Meanwhile earlier evaluations provide the main source of evidence.

Disincentive effect

The most common criticism of programme food aid is perhaps the disincentive effect on domestic agriculture in recipient countries. These effects can be caused by: *i)* the direct impacts of imports on markets; *ii)* the possibility of food aid changing consumer preferences towards imported and away from domestically-produced staples; and *iii)* a policy disincentive on governments reliant on the revenue generated by counterpart sales. There is much qualitative case study evidence of disincentives that have been observed at a local or even a wider level. However, the statistical evidence, when closely examined, is typically found to be inconclusive (Maxwell, 1991; Hoddinott *et al.*, 2003).

General development

The instability and unpredictability of food aid allocations make effective programming of either BoP or budgetary support through counterpart fund generation difficult. Furthermore, these transfers were relatively inefficient in generating local currencies (Clay *et al.*, 1996; CIDA, 1998).

Problems of fungibility

A high proportion of programme aid is a substitute for commercial imports, which reduces the need for foreign exchange. However, as this was not formally allowed, the effects could not be recognised in a donor-recipient agreement. Food aid is, in most cases, only a fraction of total aid, which prevented programme assistance being an effective instrument of conditionality or policy reform, even in the case of the only major provider, the US (McClelland, 1997).

Poverty reduction

Programme aid appeared to have rarely focused on, and seldom had measurable impacts on, poverty or on the food consumption and nutritional status of the poorest (Pillai, 2000). With a shift in priority to poverty alleviation and food security away from general development, these findings have been a major contributory factor in the downward trend in programme food aid. For example, the US has virtually phased out its Food for Development (PL480 Title III) window that had provided large-scale programme aid including, for example, to the largest recipients during the 1970s and 1980s, Egypt and Bangladesh. This aid was initially provided as credits that could be converted to a grant on evidence of recipients satisfying agreed policy objectives.

Project food aid

The review also adopts the fundamental distinction between food for direct distribution and project food aid which takes two forms. First there is imported food aid finance for local food acquisition to support food-based interventions that directly distribute food. Second, there is monetisation, where food aid is used in a similar way to programme aid as a resource transfer to the recipient country and sold to generate local currency support. These two forms of project aid have different paths of impact on the local economy and society (Clay and Stokke, 2000; Timmer, 2003; Reutlinger, 1999). The latter necessarily involve direct intervention in local food markets whereas the former have only indirect impacts through changes in demand on the part of recipients, or through resale or leakages. These forms of project aid are therefore considered separately.

Project aid for direct food distribution combines various objectives, including short-term livelihood security (targeting particularly the neediest and food-insecure) and immediate nutritional benefits with longer-term development goals. FFW aims at asset creation through physical investment. School meals seek to combine human resource development through nutrition improvement, enabling targeted beneficiaries to participate in education. Female-targeted vulnerable groups and MCH programmes also tend to promote health education and other forms of training.

Reviews of the evidence range from the moderately positive to the extremely negative, and this diversity is widely accepted as being in part a reflection of the lack of robust evidence on impacts. A recurrent theme in thematic reviews has been the weakness of monitoring and evaluation of individual projects. Some of the main findings and conclusions of the fuller review of project aid in Annex B are reported here.

Project food aid's ability to reach the poorest, particularly women, is not consistently demonstrated by the evidence. However, many projects do

succeed in reaching their intended beneficiaries. Reviews in the 1990s drew attention to the absence of robust evidence on the impact of project food aid. This was due to inadequate performance monitoring, particularly on the effectiveness of the targeting and impacts on nutritional status and human resource development (CMI, 1993; Clay *et al.*, 1998a; Barrett, 2002).

The availability of complementary non-food inputs is, however, consistently identified as a constraint on project performance. This issue was a major argument in favour of more flexible resource use. The EU 1996 regulation allows the use of food aid budget lines for financial aid through NGOs. The US legislation for PL480 Title II was modified to allow progressively wider monetisation of project aid to fund complementary non-food inputs. Even full monetisation was allowed, where funds were used to support a whole range of activities organised by NGOs for improving food security and human development (Tschirley and Howard, 2003).

More generally, all the major reviews of project aid concluded that food-based intervention is more likely to succeed when integrated as a component of a wider sectoral programme, for example health or education (*e.g.* CMI, 1993). Lessons were derived from such reviews, prompting considerable policy reformulation for project food aid, especially since the late 1990s, which are still in progress. (Webb and Rogers, 2003; WFP, 1999; USAID, 2003) Important changes include: *i)* a narrowing of the range of development activities supported by food aid, large-scale resettlement and even FFW – declined as a priority; *ii)* increasing emphasis on linking food to women in project design, distribution and monitoring benefit flows (WFP, 1999); *iii)* resurgence of interest in human resource development reflected in a donor-directed increase in resources for school feeding and mother and child health interventions (Bennett, 2003); and *iv)* efforts to bring emergency and development integration together through reconstruction and interface activities (WFP, 2002a). Robust evidence is still awaited on the consequences of these changes in project food aid. The joint evaluation of WFP development portfolio with the 1993 joint evaluation as a benchmark could make an important contribution to the evolution of project aid.

A recent evaluation of US PL480 Title II project aid through NGOs provides some positive results on process indicators for agricultural development and short-term improvements in nutritional status (Bonnard *et al.*, 2002). However, this review again underscores weaknesses in the evidence that lead inevitably to qualified conclusions and a strong recommendation for strengthening monitoring and evaluation. This study does not distinguish between the performance of projects that only directly distribute food or food from those that involve partial and full monetisation.

Monetisation

Monetisation of US development food resources by NGOs increased from 10% in 1990 to over 60% in 2001 and 2002. This trend implies a wide range of circumstances in which those designing such projects in both low and lower-middle income countries saw direct distribution as being less widely appropriate in poverty reduction and food security promotion. Monetisation is seen to be preferable when the following set of conditions is found: a country has a chronic food deficit and exceptional BoP constraints; the food commodity values are appropriate to local conditions; and those undertaking monetisation have commitment and skill to promote local agricultural development goals, avoiding potentially negative effects on local markets of food sales (Tschirley and Howard, 2003).

An earlier case of monetisation was the sale of imported dairy products and the use of proceeds for dairy development. These projects were controversial in terms of impacts on consumption patterns, and tensions between the dairy industry and the agricultural sector, especially the livelihoods of smallholders. A key feature of these projects was the relatively assured multi-annual supply of dairy products from the 1970s to the early 1990s from EU structural surpluses.

The available evidence is considered to be inadequate to isolate the developmental consequences of monetisation, and a fuller evaluation of the consequences of that major innovation is needed, including impacts on local markets. Tschirley and Howard also identify the need for more transparent evidence on efficiency of monetisation, including transaction costs. The efficiency of monetisation depends crucially on the conversion ratios for the generation of local currencies from sales of imported commodities, or "cost recovery". Some NGO personnel indicated a target of 80% cost recovery including both food aid and in-country transaction costs. Apparently the most recent review on the efficiency issue was Mendez England (1996), which found that monetisation sales recovered the carriage, insurance and freight (CIF) cost of commodities in 24% of countries, only the free alongside ship (FAS) cost (*i.e.* excluding shipping) in 52% and not even FAS in the remaining 24%.

Financial aid versus food aid

Another area of near consensus in independent reviews is that, in most circumstances, financial aid is the preferable option. This is almost always the most effective and efficient way of funding direct distribution of food, as well as providing budgetary support for general development or projects assistance (Clay and Stokke, 2000; Hoddinott *et al.*, 2003; Reutlinger, 1999; Tschirley and Howard, 2003).

A contrary argument in favour of direct food assistance is that there are particular advantages for a niche role in which food is more likely to target priority groups, for example women, and where, because of extreme poverty, a high proportion of income is consumed as food. Food aid's ability to reach the poor, especially women, is not consistently demonstrated by the evidence. Furthermore, when such targeting is successful, the impacts on intra-community and intra-household food distribution and nutritional status may not be as intended. The impacts of food-based interventions are shaped by context specific influences, necessitating beneficiary participation in decisions and careful assessment, and the options must include alternatives to distributing food.

Presently there are three specific arguments being made in favour of project food aid that merit closer consideration. First, direct food assistance is seen as having a protective function or insurance function of reducing vulnerability and providing food security in circumstances where extremely poor people are highly vulnerable to covariant risks (Haddad and Frankenberger, 2003; Webb and Rogers, 2003; Hoddinott *et al*., 2003). These are thought to be circumstances in which food markets and household strategies for coping with shock function poorly. The empirical issue is how extensive are such circumstances.

The second argument rests on the presumed additionality of food aid resources. These resources can be used in direct distribution where poor, food-insecure groups are likely to benefit nutritionally from free food. There will then be long-term productivity effects of improved nutrition. This depends on a stable institutional environment, such as schools and MCH clinics, within which distribution can be organised. The recent major initiative on food for education as a contribution to MDG on education, gender and hunger assumes such a combination of conditions. There is presently considerable divergence of views on its efficacy, and so more systematic monitoring and research is in progress to determine impacts on attendance, educational performance and nutritional and health status. Concerns include the lack of assuredness of resources for long-term forms of intervention and the need for complementary non-food resources (Bennett, 2003; Haddad and Frankenberger, 2003).

The third argument, which rests on the presumption of additionality, is that where direct distribution is inappropriate, monetisation can provide additional local currency resources for poverty focused and food security interventions (Tschirley and Howard, 2003).

As the 1993 evaluation of WFP pointed out, food aid for development is frequently a cumbersome resource, demanding specialist expertise and organisation, as well as complementary non-food resources (CMI, 1993). Food aid is also typically associated with high transactions costs. That leads to a

near consensus on the preference for financial aid, except in specific recipient country circumstances. These include where markets perform poorly, and in areas where there are likely to be structural deficits. Because of the resource uncertainties, the logic of development planning is to use food aid to complement other resources within recovery plans and sectoral programmes, rather than to look for ways of drawing other resources into strengthening food aid supported projects.

Notes

1. The OECD study on export competition issues related to food aid considers the supply-side influences on food aid in considerable detail (OECD, 2003 unpublished).
2. For example, Timmer (2003) in the summary of the WFP and World Bank workshop held in July 2003 (*www1.worldbank.org/sp/safetynets/WFP_workshop.asp*).
3. The Farm Security and Rural Investment Act (FSRIA), signed into law by President George W. Bush on 13 May 2002.
4. These relationships are analysed systematically and the related literature reviewed in the study has been undertaken for the OECD Joint Working Party on Agriculture and Trade (OECD, 2003, unpublished).
5. Major recipients of programme aid included Russia and Indonesia in 1999, Pakistan and Uzbekistan in 2001, and Ukraine in 2002.

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The Development Effectiveness of Food Aid
Does Tying Matter?

Chapter 2

The Role of the Tying Status of Food Aid

Chapter 2 investigates the implications of tied food aid for recipient countries and donor agencies. It complements the literature review of development effectiveness of food aid in Chapter 1. In addition, it provides a stand-alone assessment of the consequences of tying food aid. The chapter focuses on the resource transfer efficiency effects of tying that are amenable to a formal quantitative investigation. The investigation is based on a quantitative economic analysis of a sample of food aid transfers during 2002-03 and is complemented by a literature review on other effects of tying. The chapter reviews, first, when food aid should be characterised as tied. Second, the scope of the survey is elaborated. Third, the method of investigation for assessing the resource transfer effectiveness of food aid, mainly the cost effectiveness of the different supply modes of food aid, is explained. Next, the findings are presented. Finally, other effects of tying food aid are reviewed.

Introduction

This part of the study investigates the implications of tied food aid for recipient countries and donor agencies. It focuses on the RTE effects of tying that are currently amenable to a formal quantitative investigation. The chapter complements the literature review of development effectiveness of food aid in Chapter 1. In addition, it also provides a stand-alone assessment of the consequences of tying food aid.

This chapter is structured as follows. First, there is an analysis of when food aid is tied, underlining the importance of the DAC definition of both formal agreements and informal understandings or practices. It elaborates on when the different modes of supplying food aid should be categorised as tied. Second, the scope of the survey and the rationale for including all types of food aid in an assessment of their developmental effectiveness is described. Third, the method of investigation for assessing the resource transfer effectiveness of food aid, mainly the cost effectiveness of the different supply modes of food aid is explained. Next, the assessment findings are presented. Finally, a qualitative review of other effects of food aid tying is provided. However, more systematic country – based investigations are required to provide further information and evidence on these issues, which is beyond the scope of the current study.

The definition of tied aid

According to the DAC definition, tied aid "includes loans, grants or associated financing packages with a grant element greater than 25% and defined as aid which is in effect (in law or in fact) tied to the procurement of goods and/or services from the donor country and/or a restricted number of countries".[1]

Food aid continues to be overwhelmingly tied aid, 90% or more falling into this category. The implication is that in practical terms it is extremely difficult to distinguish the overall developmental implications of food aid from those of tied food aid. There are a few important exceptions, which offer some case study evidence, but these necessarily provide a limited basis for generalisation.

When is food aid tied?

There is consensus that, according to the DAC definitions, food aid continues to be overwhelmingly tied. However, for the purpose of a factual,

evidence-based investigation it is necessary to distinguish tied from untied food aid for donors, recipients and at the level of individual actions or shipments of food. This requires relating the concept of tying in an operational way to available statistical and other information on food aid actions.

The only available source of statistical information on food aid flows covering all DAC and some other donors is WFP's INTERFAIS database. In INTERFAIS food aid is reported as shipments or actions involving specific physical quantities of food *delivered* to a recipient country or *acquired* within that country with funds provided by an official donor agency or international NGO. All these transactions are distinguished by supply mode in one of three sourcing categories:

- *Direct transfers* including all food aid originating from a donor country.
- *Triangular purchases* – food purchases or exchanges in one developing country for use as food aid in another country.[2]
- *Local purchases* – procured in a country and used as food aid in the same country.

Direct transfers are the closest approximation to the DAC definition of tied aid. Without forming any judgement about the reasons behind individual decisions about the tying status of food aid, it was decided to treat all direct transfers as *de facto* tied for purposes of this investigation.

First of all, in some cases the tying status of food aid is unambiguous because the donor country legislation, as in the case of the United States, or regulations governing food aid operations, as in Canada, requires procurement largely within the donor country territory. There are, for example in the US case, further legislative requirements that 50% of commodities should be processed and packed (value added) before shipment, and that 75% of USAID and 50% of USDA managed food aid be transported in "flag-carrying' vessels registered in the US. In these cases direct transfers are unambiguously tied aid.

Earlier investigations have also drawn attention to a second way in which procurement of food is practically restricted by the form of contracting or tendering process. Such restrictions may include specification of the commodity type, size of shipment, timing, or shipping route. In addition, the ways in which actions are in practice organised, for example, the timing and dissemination of tendering information and the requirement for performance bonds, can have the same effect, leading to procurement within the donor country (Clay *et al*., 1996; NRI, 2000).

A third way in which specific food aid transactions may be tied is through administrative decision. Sometimes the donor or its agent, for example an NGO to which funds have been assigned with delegated responsibility, decides

to procure without competitive tender. Such administrative actions are specifically allowed for and so most likely to occur in the case of emergency operations and where there are related reasons for procuring from a single source. For example, donors such as the Netherlands and the United Kingdom, which have no regulatory restrictions on procurement and whose aid is therefore formally untied, may nevertheless, as is found in this investigation, finance food aid transactions from within the European Union or even domestic suppliers. All such actions are within the INTERFAIS definition of direct transfers.

Triangular purchases typically involve commodities acquired in one developing country for use in another with unrestricted, or relatively unrestricted, funds.[3] If the procurement process is competitive or sensitive to international market prices, then this category would be expected to most closely approximate to an unrestricted commercial transaction or international competitive tender. However, this is not always necessarily the case, as there are circumstances in which the donor or its agent is deliberately procuring food in a third country to directly support its exports. There are other reasons of timeliness, appropriateness or administrative convenience for restricting procurement. For example, earlier studies identified triangular purchases that were specifically organised to find outlets for food exports from Zimbabwe in the 1980s and 1990s (Clay and Benson, 1991; Relief and Development Institute, 1987).

Local purchase of food for use in the same country would be economically rational where the domestic price is below the import parity price and so in effect this is a *non-tradable* good. Again, an agency may have particular reasons for restricting procurement to the local market, which might override efficiency considerations. Some donors report that they specify local procurement. Others favour local procurement or triangular transactions wherever possible. Formally, this represents another form of aid tying, since the procuring agency is excluding other developing and OECD country sources. The prevalence of all such practices therefore justifies looking at the efficiency and, where available, other consequences of different sources of food aid.

In practice, even food aid that is not formally or *de facto* tied to donor sources might be subject to other forms of tying when it intends to favour agricultural producers in the recipient country or agricultural exporters in other developing countries. An empirical question is what costs are associated with any of these restrictions on food aid sourcing from a pure efficiency point of view. As virtually all food aid is subject to some form of formal legal or administrative restriction on source of procurement and associated delivery services, it is logical to contrast the efficiency of the different modes of supply with the actual or hypothetical cost of imports organised on a competitive basis.

Scope of the survey

Food aid categories

The study is concerned with the implications of developmental food aid. Nevertheless, after careful reflection it was decided to include all food aid, however categorised, in an empirical investigation into tying status for the following reasons:

- *Emergency and recovery food aid* is partly used to target benefits onto particular groups, those affected by humanitarian crises and natural disasters, as emergency aid and protracted relief and recovery assistance. However, in the latter category there may also be reconstruction investment objectives of a developmental character.
- *Programme food aid* is used as a resource transfer instrument and, similarly, project aid, which is monetised, is functioning as a resource transfer mechanism, rather than as a way of targeting particular groups or achieving specific development investment objectives. Where the objective is to provide direct food assistance through *project aid*, in many circumstances, these food-based interventions could in principle be funded with financial transfers.
- *Emergency aid* is in many circumstances the only option in situations that are life threatening or likely to be seriously damaging to health, continuing nutritional status and the livelihoods of affected groups. Nevertheless, it is still legitimate to look at the RTE and to determine whether these instruments typically involve additional transaction costs.

Accordingly, it was decided that it would be appropriate to explore the costs and relative RTE of food aid, however categorised, and whatever the mode of supply. There is a further practical reason for considering all food aid. A number of DAC members direct their food aid only to emergency and relief and recovery operations. Therefore, an investigation into the effects of tying status of aid categorised as "developmental" would restrict the analysis to what is provided by only a limited numbers of DAC members.

Survey data

The study provides analysis of food aid transactions by a representative group of 16 donors to 15 purposively selected recipient countries. These 16 donors are DAC members, and include all the largest providers of food aid during 2000 and 2003 except China and South Korea, as well as some other signatories to the Food Aid Convention (Table A.1). The recipients include the largest in terms of total tonnage and others representing a range of country situations (*e.g.* landlocked, small islands, middle income and economies in transition).

A total of 1 236 transactions were identified involving 3 456 420 tonnes of commodities in ten categories delivered as food aid between January 2002 and June 2003 to 15 case study recipient countries and financed by 16 selected OECD member countries as reported in WFP INTERFAIS. The reporting of food aid to INTERFAIS appears to be relatively complete. However, some omissions were noted. For example, food-related funding apparently accounts for around 25% of expenditure by the European Community Humanitarian Office (ECHO). No ECHO funded actions were separately identified in the INTERFAIS data reviewed for 2002-03. More information is needed on financial aid related to food.

In tonnage terms 66.5% was wheat, 12% maize and over 5% Corn Soya Blend (CSB), and the remaining made up of vegetable oil and rice. Information was sought on costs of procurement, shipping, and overland transport to the border of the recipient country for imported commodities. For local purchases only internal procurement costs were collected. Internal transport, storage and handling costs were excluded to provide a comparison of aid costs in terms of border prices.

As of 13th July 2004, information had been obtained for 1 119 transactions (90%) including 87% of surveyed tonnage (Table A.2). Following initial data collection between December 2003 and March 2004, each donor for whom coverage was less than 90% of transactions was requested, between April and June 2004, to provide the missing data. There is a further description of the way in which information was collected in Annex A.

This high proportion of data capture ensured that the sample of transactions was broadly comparable to donor programmes overall, in the period, in terms of proportions of direct transfers, local purchases and triangular purchases. Sample coverage for the majority of donors was above 90%, the important exceptions being the EC (around 76% coverage of transactions and tonnage) and Italy (63% of transactions equating to 43% of tonnage). In the EC case the Commission had difficulty in accessing data for food aid purchases funded by FOREX grants to recipient governments, especially Mozambique. The missing data on Italian transactions included both aid direct to recipient governments and aid channelled through NGOs. The proportion of the sample for individual donors to total food aid slightly under-represents the contribution of the US, although it is still the major donor with 51% of surveyed tonnage.

Method of investigation

The greater part of food aid involves widely traded commodities, including wheat, maize, rice and sorghum, vegetable oils, dairy products and a complex of pulses and legumes. The important exception is already processed foods, corn soya blend and wheat soya blend that are intended for

direct distribution. Furthermore, a substantial proportion of recipient countries import these traded commodities on a commercial basis.

Thus, it is possible to undertake an analysis of the RTE of food aid by comparing the costs of food aid transactions with commercial food imports. Theoretical investigations have clarified the inefficiencies that are likely to be associated with tied food aid (Abbott and McCarthy, 1982; Barrett, 2002). Similarly, factual or empirical evidence-based studies have repeatedly shown that there are large differences in terms of prices and transaction costs associated with tied food aid.

The most extensive investigation on this efficiency issue, the Evaluation of EU Programme Food Aid, developed a practical methodology for calculating the RTE of programme food aid provided by the EC and the then nine Member States (Clay *et al*., 1996). This tested methodology is adopted in this study.

The methodology is employed to contrast food directly purchased in donor countries (direct transfers), procurements in third countries (triangular purchases), and local procurement in recipient partner countries, with food imports that could be tendered on the open international market. The underlying assumption is that the alternative to food aid would be the provision of finance to enable the recipient country government, or an international or non-government agency acting on behalf of the donor, to acquire food on the open international market.

Measuring the cost-effectiveness of supply

The statistical analysis examines the RTE of food aid. It focuses on the value-for-money aspect of *overall costs of supply*. It compares *reported actual costs* for individual food aid actions with costs of a hypothetical *alternative commercial transaction* (ACT). The ACT cost is an estimate of what it would have cost the national government or a local agent to import the same commodity volume at the same time by international commercial competitive tender. The ACT costs use commodity grades that are appropriate for a food aid transaction following discussion with WFP staff.

The ACT equates to the import parity or border price (IPP) and provides a general basis for comparing the cost-effectiveness of all food aid actions, including local purchases. In the case of local purchases these would not be efficient on narrow cost grounds if the overall cost of supply exceeded the import parity price. The measure of cost-effectiveness used or, more precisely, the ineffectiveness, is the scale of deviation of *actual costs* incurred by the donor agency from the calculated *ACT costs*.

The selected DAC members do not provide food aid on a uniform basis. Some countries organise procurement and shipping separately, while others tender on a whole-cost basis for delivery to final destination or port of

shipment. The basis of organising food aid also varies between direct aid, triangular transactions mobilised in third – typically developing – countries and/or local procurement. Consequently, it is only practical to compare the overall costs of supply.

Reported actual *aid costs*[4] include only *financial costs or expenditure* attributed to the food aid budget of the donor country and excludes any other expenditure otherwise attributable to, for example, the internal agricultural budget.[5] The aid cost includes commodity and transport costs to recipient country port or landlocked country border. Reported donor costs were converted into a common currency (USD) for comparative purposes, using exchange rates as reported by the IMF for the period of the actual aid delivery.

The ACT was computed after consultation with the International Grain Council (IGC), the WFP, EuronAid and some experts in the private sector, to identify the likely least-cost alternative source of supply, and took into account whether commodities could be shipped on low-cost charter or (higher-cost) liner terms, and in bulk or bagged form. A set of reference costs was then derived by using "quoted" commercial market prices and reported sales and procurement data[6] for the same three-monthly period as the food aid action and the transport costs, plus a fixed mark-up to allow for insurance and inspection.[7]

As an overall measure of cost-effectiveness, the ratio of actual food aid cost per metric tonne and the ACT were then computed on a transaction-by-transaction basis. Most food aid deliveries include commodity costs, transport to the point of entry to the recipient country, and distribution costs. The relevant ACT is therefore the hypothetical commercial procurement cost of the same commodity, plus the international transport cost to the same destination and, in the case of landlocked countries, overland transport costs to the point of entry (border price) at the same time as the food aid. In this assessment internal transport storage and handling (ITSH) costs have not been included.

The actual aid costs, as provided by the donors, give a first indication of total costs and the relative costs of different modes of supply: direct, triangular or local purchase. The comparison with an alternative commercial transaction (ACT) provides the basis for measuring the efficiency of all individual actions and categories of food aid. The ratio of the total food aid cost and an alternative commercial transaction produces an RTE ratio, a broad measure of the comparative efficiency of individual actions. Box 2.1 sets out a worked example of how the ACT RTE ratio is calculated.

Box 2.1. **Resource transfer efficiency: a worked example**

Transaction Description

Donor: Canada	Recipient: Peru
Arrival Year: 2003	Commodity: wheat
Channel: WFP	Quantity: 7 920 metric tonnes
Mode: Direct transfer	Transport bulk

Actual Aid Cost

Commodity costs	USD 177 per tonne FOB Vancouver
Freight costs	USD 35 per tonne FOB Vancouver-Callao
Total costs (177 + 35)	**USD 212 per tonne**

Alternative Commercial Transaction (ACT) Cost

Commodity costs	USD 139 per tonne FOB US Gulf Port
Freight costs	USD 29 per tonne FOB US Gulf port to Callao
Total costs (139 + 29)	**USD 168 per tonne**

Resource transfer efficiency calculation

RTE (Actual Aid Cost/ACT Cost) × 100 = (212/168) × 100 = **126 per tonne**.

Alternative commercial transactions: prices and costs

The study has relied heavily on quoted prices for widely traded categories of commodities on an early delivery or spot basis. Country specific sources and commodities have been used in the analysis when sufficient evidence was available to justify the choice and provide accurate cost data.

In practice, there is considerable scope for advanced contracting bilateral trade arrangements between an exporting-importing country and forward trading. Arrangements involving credits are likely to involve discounts, and so in practice the prices used for reference costs are close to the *maximum price* that would have been paid for commercial imports.

The restraints, time and resources, have not allowed for individual country visits and further consultation on these matters, but discussions indicate a number of cases where commercial trade would involve substantial cost savings. Such cost savings involve further country specific sources of supply, categories of commodities for direct distribution that would not be selected for commercial imports. This analysis should therefore be regarded as providing *conservative estimates* of the cost effectiveness ratios of different modes of supply and the implied efficiency costs of tying.

Assumptions

The validity of this approach rests on two assumptions: *i*) the individual food aid transaction is marginal in relation to total trade in the specific category of commodity and measures for management of the internal market by exporting countries,[8] and *ii*) the individual food transaction is assumed not to be additional to the donor's overall aid budget, so the funds used to provide this food aid would otherwise have been available for an alternative untied food aid action.

The implication, therefore, is that the recipient government or agency acting on behalf of the donor could have used untied foreign exchange to buy commodities for the same delivery period on least-cost terms by international transfer. Such an assumption is increasingly appropriate as a growing proportion of food imports are organised on a commercial basis by developing country governments and, with the liberalisation of food markets, handled by the private sector. This trend is confirmed by the 15 case studies and evidence of commercial imports, even in emergency situations.[9]

For some donors, the second assumption of funding flexibility is problematic. For each of the individual transactions that are marginal relative to the total food aid budget, the donor agency may have flexibility. This is

Table 2.1. **Donor programmes by transfer mode**
Share of total donor tonnage in percentage

Donors	Direct transfers	Local purchases	Triangular purchases
Australia	94.5	2.0	3.5
Belgium	0.0	0.0	100.0
Canada	94.9	3.2	1.9
Denmark	69.1	11.7	19.2
EC	77.4	14.5	8.1
Finland	6.7	43.0	50.2
France	76.1	17.1	6.8
Germany	2.1	31.1	66.7
Italy	63.5	1.0	35.4
Japan	62.0	19.6	18.4
Netherlands	0.7	32.3	67.1
Norway	1.9	19.4	78.7
Sweden	0.0	27.5	72.5
Switzerland	0.0	18.3	81.7
United Kingdom	0.0	3.5	96.5
United States	99.6	0.2	0.2
Total	**80.1**	**6.6**	**13.3**

Source: Survey data.

confirmed by all 16 donors' funding, even if only on a small scale, local or triangular transactions during the study period (Table 2.1). This partial flexibility on sourcing is further confirmed by the substantially higher proportion of developing country acquisition in 2003, funded by donors who have previously largely provided direct aid (WFP, 2004b). In 2003, Australia sourced 33%, Canada 10%, France 42% and the United States a record 8% of commodity tonnage through local purchases and triangular transactions (WFP, 2004b). However, at an overall programme level some food aid programmes continue to be managed and budgeted separately from, and so may be partially additional to, other forms of aid, and are not necessarily interchangeable with other instruments.

Findings

Transfer efficiency and mode of supply

The complete results of the survey for all the sample actions according to mode of transfer or supply are summarised in Table 2.2 and presented graphically in Figure 2.1. The overall transfer inefficiency costs of food aid (RTE: 127) was 27%. For direct transfers the overall cost inefficiency was 34%. In contrast, triangular transactions were relatively efficient with an RTE of 101. Local purchases were the most transfer efficient (RTE: 88).

The sample estimate understates the implied global costs of aid tying and providing commodity aid in 2002/03. This is largely because globally, a higher proportion of food aid was – relatively more costly – direct transfers, and the US, a relatively higher cost provider, is underrepresented in the sample.

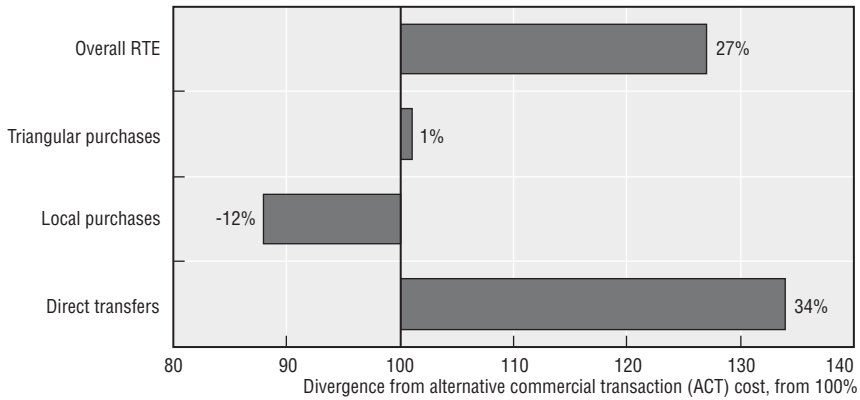
To provide an approximate estimate of the overall transfer inefficiency costs of food aid, the global RTE was calculated for food aid delivered in 2002. The estimate is based on the total aid provided by the 16 donors, weighted by the proportions of direct, triangular and local purchases in their aid. These

Table 2.2. **Resource transfer efficient analysis: survey tonnages, donor expenditure and RTE ratio by transfer mode**

	Survey total	Direct transfers	Local purchases	Triangular Purchases
Number of transactions	1 119	574	219	326
Share of transactions (%)	100	51	20	29
Total tonnage (in metric tonnes)	2 995 489	2 398 819	196 788	399 881
Share of total tonnage (%)	100	80	7	13
Total donor expenditure (USD million)	789.6	671.0	36.6	82.3
Share of expenditure (%)	100	85	5	10
RTE ratios	**127**	**134**	**88**	**101**

Source: Survey data.

Figure 2.1. **Resource transfer efficiency (RTE) of food aid by transfer mode**



Source: Survey data.

calculations suggest a global value for the RTE of 130. Thus, globally, food aid was around 30% more costly than an equivalent volume of commercial imports. The actual costs of local purchases and triangular transactions, as reported by donors and operational agencies, were also approximately 46% and 33% less than those of tied direct aid.

It should be emphasised that these results are lower limit or conservative estimates of the costs of donor direction to provide tied food aid because they are based, as explained above, on the maximum price which would have been paid for commercial imports. Furthermore, there are transaction costs of organising and importing food products that are not reflected in the efficiency calculations. These costs include the administrative costs of organising acquisition, processing and shipping, internal transport from port or border to centres for distribution or sale, internal storage, transport and handling (ITSH), and sales costs for monetised or programme aid. The more precise estimation of resource transfer inefficiencies and other related transaction costs would require investigations both at an agency level and within recipient countries that are beyond the scope of this study.

Overall the survey results show that there are substantial cost inefficiencies associated with food aid tying. There is, thus, scope for considerable efficiency savings in untying and switching to unrestricted sourcing, or to developing country triangular purchases. Triangular transactions were a third less costly than direct aid. Local purchases usually result in more cost-effective transfers, but this category includes a wide range of efficiency ratios. Unrestricted sourcing would be expected to achieve even greater cost savings. These figures imply that DAC members could, collectively, substantially increase their food aid without extra costs because of potentially large efficiency

savings, and provide more effective food aid through being more flexible about sourcing, or by completely untying their food aid. The relative efficiency of local purchasing and restricted third-country purchasing also suggests the benefits of untying aid would not just flow to middle-income agricultural exporting countries. Greater donor flexibility in sourcing would benefit agricultural development in many low-income developing countries.

Donors

The donors with the highest overall RTE ratios and, by implication, the least cost-effective in sourcing, are Australia (158), Belgium (147), Canada (138) and the United States (133) as shown in Table 2.3. All of these donors (except Belgium, where the small sample does not allow robust conclusions) also have relatively high cost levels for direct transfers (tied), which constitute a high proportion of their food aid budget.[10]

Table 2.3. **Donors: RTE ratio by transfer mode**

Donors	All	Direct transfers	Local purchases	Triangular purchases
Australia	158	165	116	91
Belgium	147	n.a.	n.a.	147
Canada	138	141	108	79
Denmark	125	128	125	99
EC	125	135	84	101
Finland	115	161	97	115
France	125	137	93	127
Germany	96	108	100	94
Italy	119	131	98	94
Japan	111	117	79	115
Netherlands	106	101	85	117
Norway	104	126	97	106
Sweden	99	n.a.	87	103
Switzerland	92	n.a.	103	82
United Kingdom	93	n.a.	41	97
United States	133	134	80	96
Total (16)	**127**	**134**	**88**	**101**

Source: Survey data.

Direct transfers are the most inefficient mode of sourcing for all donors except the Netherlands (untied). Comparing the RTE of donors who tie a high proportion of their food aid (Australia, Canada, Denmark, France, Italy, Japan and the US) suggests that direct sourcing does *not* always involve extremely high levels of cost-ineffectiveness. Japan has an RTE for direct transfers, substantially below the overall mean level.[11] The US RTE ratios have a bi-modal pattern with commodities provided for sale relatively more cost-effective than those for direct

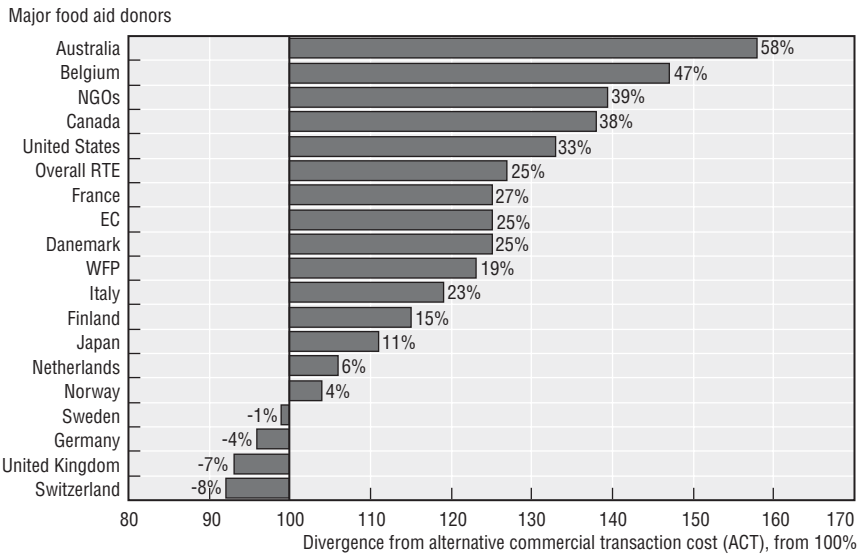
distribution. There is also some evidence that Canada has reduced costs by switching its sourcing away from the high protein grades of wheat used for bread making that command a premium on world markets.

Broadly the most cost effective donors – those with RTEs of below 110 – have formally untied their food aid or have the least restrictive procurement rules. This group includes Germany, Netherlands, Norway, Sweden, Switzerland and the United Kingdom.

Triangular and local purchases generally involve lower overall RTEs, although donor experience with triangular purchases and local purchase is uneven. It is notable that when donors who generally tie their aid (Australia, Canada, Denmark, France, Italy, Japan and the US) have sourced, in third countries or locally in the beneficiary country, these actions are relatively cost-effective.

It is also noteworthy that there were some large differences in RTE of local purchases, reflecting the circumstances in which these were undertaken and the commodities involved. There was a similar range for triangular transactions, reflecting, in large part, either donor direction for triangular purchases for use in specific recipient countries, or WFP decisions on the most appropriate source of acquisition for humanitarian and project aid. Some donor programmes are wholly channelled through WFP, so the efficiency of the programme reflects the interactions of donor preferences with the operational choices of WFP.

Figure 2.2. **Resource transfer efficiency of food aid: major donors**



Source: Survey data.

Recipients

Direct transfers were consistently more costly than alternative commercial transactions in all cases except Peru (Table 2.4). Some particularly cost-ineffective destinations were direct transfers to Bangladesh, Ethiopia, Malawi and Kenya. These mainly involved wheat transactions that were inefficient in comparison to the lower cost possibility of sourcing in India – used in some aid actions and by commercial traders. Haiti and Cape Verde were the only recipients where direct transfers were the most cost-effective mode of supply.

The cost-effectiveness of local purchase is on the whole most variable, ranging from highly efficient procurement of cereals in land-locked Ethiopia, Malawi and Zambia, as well as Kenya, to relatively high costs in India, Jordan and Mauritania, and very high levels in Haiti. Local purchases in Haiti, a country with small-scale, high-cost production, were exceedingly cost-ineffective, and other considerations presumably influenced choice of source.[12] Tied aid shipments to Peru, all for monetisation, were relatively cost-effective, suggesting commodity selection with transfer efficiency in mind.

Table 2.4. **Recipient countries: RTE ratio by transfer mode**

Recipients	All	Direct transfers	Local purchases	Triangular purchases
Bangladesh	178	189	120	115
Cape Verde	119	117	n.a.	131
Eritrea	119	139	98	92
Ethiopia	126	142	87	95
Georgia	111	120	76	74
Haiti	135	134	206	157
India	132	131	157	n.a.
Jordan	129	129	131	n.a.
Kenya	135	154	96	98
Korea, Dem. Rep.	131	135	n.a.	95
Malawi	143	157	85	124
Mauritania	119	124	136	112
Mozambique	120	123	107	107
Peru	89	89	n.a.	n.a.
Zambia	89	106	64	97
Total (15)	**127**	**134**	**88**	**101**

Source: Survey data.

Local purchases in India were costly because internal prices in a highly protected market are set substantially above IPP or border prices. Cost-ineffective local purchases, combined with direct transfers, resulted in India having a relatively high RTE (132). Perhaps this inefficiency may have contributed to the

sharp decline in food aid to India in 2003. In contrast, India, as a source of third-country wheat, exports at competitive export parity levels. The availability of low-cost Indian exports explains the very cost-ineffective direct transfers to Bangladesh with an RTE of 189. Food aid to Bangladesh has become sharply less cost-effective when being provided directly by the donors than in the mid-1990s (see Clay *et al*., 1996) because of the possibility of highly competitive sourcing in neighbouring India for wheat, and also for vegetable oil in south-east Asia.

Systematic patterns are difficult to isolate, but for African recipients third-country acquisition and local purchases appear to be relatively cost-effective. Countries with comparatively efficient food aid transfers include Eritrea, because of third-country procurement, and Ethiopia, Mozambique and especially Zambia for both local and third-country sourcing. Mauritania costs were also below average because of triangular purchases. Commercial importing rather than small-scale food aid might be the preferred option for the island economy of Cape Verde.[13]

The contrast in transfer efficiency between neighbouring Malawi and Zambia shows how the different procurement options, of Tanzanian or South African maize, can result in substantial differences in cost efficiency. The selected maize and maize meal ACT for Malawi was sourcing in Tanzania. This option was much lower cost than actual TPs, largely sourced in South Africa, at inflated prices. Actual sourcing in 2002 was constrained by what was considered practical in a crisis. This choice was not practical for similarly landlocked Zambia and the selected maize ACT was sourced in South Africa. Crisis-related demand for South African white maize was also augmented by problems of acceptability to recipients of donor-sourced GM maize and the problems of organising its milling (Hansch *et al*., 2004; WFP, 2003a).

Food aid uses and channels

There were substantial differences in the resource transfer effectiveness of the main categories of food aid use. These differences are closely linked to the channels (WFP, NGOs or on a bilateral government to government basis) through which the aid is provided, as well as to the food source. The relationships between use category, channel and source are therefore considered together.

A priori reasoning might suggest that emergency relief operations are likely to be the most cost-inefficient because of the need for urgent responses in life-threatening situations and the lack of opportunity for forward planning. Large-scale programme assistance, where this still occurs, is likely to exploit economies of scale in bulk shipment and advanced tendering. Project aid which allows an opportunity for advance tendering, but involves a smaller scale operation would fall in between the other categories. The survey results indicate a rather different ranking (Table 2.5).

Table 2.5. **Type of operation: RTE ratio by transfer mode**

Type		All	Direct transfers	Local purchases	Triangular purchases
Relief food distribution	WFP emergency	123	139	80	102
	NGO emergency	157	197	82	96
	Govt. to govt.	132	132	n.a.	n.a.
	WFP PRRO	116	146	82	98
	Sub-total	**127**	**142**	**81**	**101**
Development food distribution	WFP	130	147	98	103
	NGOs	153	154	121	139
	Sub-total	**144**	**151**	**104**	**103**
Development food for sale	NGO monetisation	108	108	n.a.	n.a.
	Govt. to govt.	123	123	n.a.	n.a.
	Sub-total	**114**	**114**	**n.a.**	**n.a.**
Overall total		**127**	**134**	**88**	**101**

Source: Survey data.

The counter-intuitive result that emergency aid is relatively efficient partly reflects the large PDRK programme. This joint multilateral-bilateral emergency operation has continued for a decade so allowing opportunity for pre-planning and efficiency savings. Extended relief and recovery operations, whether categorised as emergencies or Protracted Relief and Rehabilitation Operations (PRROs), are now a well-established and substantial part of food aid. As the balance of modes of supply indicates, these are disproportionately supported by donors who are providing funds for both third-country and local-sourcing of food.

A key distinction in food aid is between support for direct distribution through food-based interventions, whether as relief or project aid, and in providing commodities for sale. Only tied direct transfers were provided for sale as programme budgetary support or project monetisation (US only). The survey findings suggest that programme aid (RTE 123) and project monetisation (RTE 108) are about 25% more transfer-efficient than other direct, tied aid whether provided for immediate or protracted relief (RTE 132-197), or for development projects (RTE: 151). Part of the explanation is that programme aid and project monetisation actions were substantially larger than those in support of direct distribution, thus, realising economies of scale. The selection of commodities, usually avoiding highly processed and blended cereals (see the section below) may also have been influenced by transfer efficiency considerations. Sourcing food distribution projects locally or by triangular transactions is also similarly more cost-effective than with direct, tied aid.

Differences in transfer efficiency are also linked to channels and their modes of supply (Table 2.5). All channels have high levels of resource transfer

inefficiency for direct transfers provided for direct distribution, with NGO operations being more costly. WFP local and third-country sourcing for relief were the most efficient. NGOs were, however, less cost-effective in providing development project aid for direct distribution. NGO local purchases also exhibit a much wider variation in transfer efficiency. The coefficient of variation for NGOs' local purchases is 0.41 compared to 0.26 for WFP.

A factor accounting for cost-ineffective NGO transactions is that smaller-size transactions are less cost effective than WFP and government-to-government transactions. NGO programmes also commonly involve multiple development goals, requiring financing for the development of physical and human capital. Although efforts were made to avoid the accounting of these extra costs within commodity and freight costs, if there are instances when they are included this is likely to be for NGO actions. NGO informants also state that they take account of local producer support and market development goals in their often small-scale local purchases. The small number of government-to-government programme aid actions that do not involve intermediaries are also relatively less inefficient.

Commodities

There were substantial differences in the transfer efficiency of the food surveyed, as well as considerable variations in costs within each of these food groups (Table 2.6). These variations in efficiency reflect the balance of donor, agency and recipient influences on a selection of commodities, timing and sourcing already discussed.

Table 2.6. **Commodities: RTE ratio by transfer mode**

Commodities		All	Direct transfers	Local purchases	Triangular purchases
Grains	Maize	121	142	86	116
	Rice	129	128	161	122
	Sorghum	80	96	78	n.a.
	Wheat	134	142	105	97
	Sub-total	**130**	**140**	**89**	**101**
Processed grains	Corn soya blend	138	145	75	99
	Maize meal	103	108	70	150
	Wheat soya blend	133	151	114	98
	Wheat flour	128	139	74	72
	Sub-total	**134**	**142**	**74**	**99**
	Sugar	101	120	120	90
	Vegetable oil	107	107	166	105
Overall total		**127**	**134**	**88**	**101**

Source: Survey data.

There are substantial differences in transfer efficiency amongst cereals and between relatively unprocessed and highly processed cereals. Coarse grains, maize and sorghum are relatively more cost-effective than rice and wheat, especially when sourced locally. Highly processed cereals including wheat flour, maize meal and blended foods are slightly less cost-effective overall than grains.

The largest differences in transfer efficiency within food groups of 68% is between already highly processed products shipped from donor countries, and local sourcing of similar products. Apparently the proportion of tied food aid which is shipped in an already highly processed form has been increasing because of donor direction. The effectiveness concerns, from a development perspective, about this form of tying – to increase the value added in the donor country – are discussed further, later in this chapter (Bonnard *et al.*, 2002; Marchione, 2002; Tschirley and Howard, 2003). Such doubts about this form of tying are reinforced by evidence of transfer inefficiency.

There are relatively positive transfer efficiency results for sugar and vegetable oils (RTE: 101 and RTE: 107 respectively). These should be regarded as highly tentative given the complexities of these commodity groups, and the relatively little attention they have received in the evaluation literature compared to cereals.

Wheat involves the greatest number of transactions and the largest tonnage, and heavily influences the overall result. A pattern of inefficient direct transfers, compensated in the overall result by efficient local and triangular purchases, is evident. Triangular purchases and local purchases achieved an average actual cost saving of 45% and 37% in comparison with direct transfers, which all appeared to be tied aid. The efficient triangular purchases tended to be sourced in India and China.

Wheat flour: These calculations indicate considerable efficiency gains compared with direct transfers obtained through importing grain on a competitive basis from a low-cost developing country source and from processing locally. Wherever this is practical, a saving of around 43% in costs is indicated. Both local and triangular purchases of wheat flour appear to be more cost-effective than the selected ACT with cost savings of around 50% compared with direct transfers. Selected ACT involved import of wheat plus local milling costs rather than import of wheat flour. The triangular purchases may be cost-effective owing to subsidies and very competitive milling charges in developing countries. However, milling in OECD countries removes the developmental impact of value addition in recipient countries.

Maize and maize meal is a complex commodity group with food aid involving two distinct sub-categories of yellow and white maize. Yellow maize is typically shipped from the US, and, to a limited extent, from European and

other sources. White maize, even more in demand in crisis-affected African countries because of the GMO controversy, was largely available in 2002-03 for export from South Africa. The high demand for South African maize in the study period also increased the ACT costs for this source. Under normal price conditions direct transfers are likely to be relatively inefficient. These temporarily inflated prices also resulted in some costly and apparently inefficient triangular purchases in the period and explain the contrast between the results for maize/maize meal and those for triangular transactions of other commodities. Direct transfers were of the order of 38% (maize meal) and 70% (maize) less efficient, compared with, wherever feasible, local purchases. These reflect transport costs to inland destinations such as Malawi and Zambia.

Rice appears to be cost-ineffective as food aid whatever the selected transfer mode, especially direct tied aid or local purchases. The local purchase result (RTE 161) suggests that they are often not necessarily the least-cost option because of protection measures in recipient countries. Donors also appear to be failing to utilise least-cost south-east Asian markets for procurement as triangular purchases.

Vegetable oil is a complex commodity group. Donors provide, and agencies select, refined or partially refined soyabean or rapeseed oil, and so ACT were based on soyabean oil. However, palm oil could be highly competitive. There were many small shipments, particularly by NGOs, for relief operations and also monetisation. Only small-scale local purchases appear to be cost-ineffective. The high RTE (166) is heavily influenced by a small number of actions.

Sugar: Results indicate this as a relatively cost-effective area of supply even as direct transfers. A number of these direct transfers were not tied aid. For instance the Netherlands provided untied funds to WFP, which were used to procure sugar by tender, also the Netherlands. The ACT and the most common choice in actual commodity sourcing for refined white sugar are similar, explaining the low RTEs. The possibilities of lower-cost sourcing in developing countries being linked to the selection of lower grades as appropriate for relief operations, might be investigated further. The results may reflect the influence on export prices of substantial internal subsidisation in Europe and the difficulties of achieving cost savings for small volumes provided for relief operations.

Corn soya blend (CSB) and wheat soya blend (WSB): Table 2.6 indicates considerable efficiency savings by procurement of CSB and WSB or fortified foods with a similar nutritional value where these are supplied by local or regional processors or through open international tender.

Influences on resource transfer efficiency

A multivariate statistical analysis employing regression techniques was used to isolate factors that are systematically associated with differences in resource transfer efficiency. The investigation was undertaken for all 1 119 transactions and then on a commodity-by-commodity basis, with total cost per metric tonne or the RTE ratio as the dependent variable.

Transaction size (tonnage) amongst the explanatory variables tested in multiple regression analysis is an important influence on total cost per metric tonne because of its association with shipping costs in considering all transactions. However, size of shipment is relatively unimportant in explaining efficiency differences and for specific commodities, such as wheat and vegetable oil.

The *modes of supply*, a key focus of the study, were found to be associated with significant differences in costs and efficiency.

- *Direct transfers* are typically associated with higher costs and more inefficient transfers.
- *Triangular transactions,* which are commonly subject to restrictions on sourcing to the region or a developing country approximate most closely to ACTs.
- Overall *local purchases* are a significant influence in lowering costs.

These results are in accordance with economic theory that implies tying would increase costs. Local purchase becomes rational when internal prices are competitive with imports and some donors or their agents have the freedom to acquire food in the recipient country. There is however a greater range in RTE ratios for local purchases than the other modes of supply. This is reflected in the coefficients of variation for the supply modes, which are 0.247 for direct transfers and 0.244 for triangular purchases in comparison to 0.327 for local purchases.

The *overall size of donor programmes* is a significant influence on costs; as the size of programme increases, typically total costs per tonne decrease. Nevertheless, US transactions have significantly higher costs per metric tonne overall. This difference in US costs was initially thought to be associated with shipment costs linked to the US cargo preference legislation rather than to commodity procurement. However, further analysis of sample and cargo preference data suggests that freight and commodity costs are both contributing factors to the high resource transfer inefficiency ratio. The high US commodity costs could be linked to legislation requiring the processing of 50% of commodities and value addition prior to shipping (*e.g.* milling and bagging). In contrast, the US is clearly a competitive international supplier, as indicated by selection as a third country source by WFP, and as a provider of the commodity prices for many of this study's ACTs.

Commodities provided for *sale* have relatively lower cost per metric tonne and greater transfer efficiency. The lower costs are linked to the transfer size. The mean transaction size for monetised transfers was just over 10 000 metric tonnes in comparison to just over 2 000 metric tonnes for transfers for direct distribution. Monetised transactions included only four commodities (wheat, maize, rice and vegetable oil) with some vegetable transactions having especially low RTEs. This result is consistent with information from US NGOs, which indicated that cost-efficiency does influence commodity selection for monetisation. The concentration on familiar commodities with well-developed markets allows NGOs and local governments to monetise the commodities in an efficient manner. The monetised actions were predominantly from the US. The proportion of monetised and programme aid is under-represented in the sample; these present more efficient RTEs and therefore a more representative sample would be likely to lower the overall RTE. Japan also provided some efficient rice transfers. However these operations which included apparently the re-export of imported rice were sometimes reported as of inferior quality.

Looking at costs for individual commodities, *wheat* dominates the overall picture and has relatively similar influences on costs to the overall sample. For *maize* local purchases have relatively lower costs, whereas in landlocked countries costs are also relatively high. *Vegetable oil* influences are interestingly distinct: direct transfers and local purchases as well as US sourcing are associated with higher costs, whereas size of donor programme and transfers for sale reduce costs.

Other effects of tying: issues for investigation

The problem of evidence

Aid tying is likely to have effects apart from RTE costs. Multiple objectives imply trade-offs and the empirical issue is to determine the nature and extent of these effects. The steps taken by agencies to prevent potential negative effects provide clues to some of these issues. The US legislation includes the Bellmon provision for an analysis of potential effects on agricultural markets in the beneficiary country (USAID, 1985). A recent policy analysis of the scope for monetisation of project food aid focuses on possible impacts on local market development (Tschirley and Howard, 2003). Evaluation has resulted in concerns about the possible nutritional impacts of restrictions caused by tying on the availability of commodities in emergency operations (Marchione, 2002).

After a review of the available evidence in the form of evaluation reports and research studies, it was concluded that there is insufficient evidence to permit, in this study, a rigorous assessment of such potential consequences of aid tying. First of all, evaluations typically focus on the consequences of what

happened "before and after" and sometimes with and without scenarios. These evaluations do not normally give much attention to other possible ways of intervening, so that the evidence on the effects of aid tying is at best fragmentary. Consequently, the discussion in this section is restricted to a series of qualitative examples of concerns and alleged effects as noted in the ToR for the study. Second, in most recent years around 90% of food aid has been direct and formally, and informally, tied. Furthermore, an even higher proportion of programme and project aid for development is direct aid. Therefore, it is difficult to isolate the consequences of food aid tying from the overall impacts of food aid as commodity aid. The other potential effects of tying identified in this section with illustrative examples of alleged negative impacts should be considered as issues for furthermore systematic investigation.

Uncertain, fluctuating food aid allocations

A statistical analysis for the 15 case study recipient countries confirmed that the considerable short-term variability in total global levels of emergency and programme and project categories is also reflected at country level. A further investigation would be required to establish to what extent this variability at country level was an intended response to changing local circumstances, or a consequence of donor supply constraints, including inflexibilities resulting from tying of aid, and then what the effects of this variability were.

Effects on local production, local markets and trade

The disincentive issues concerning food aid overall are in large part associated with tied aid. The potential for negative impacts should be carefully assessed in the case of all food aid. In emergencies where additional imports are organised on an exceptional, temporary basis, such concerns are often set aside. The US, in providing over 50% of global food aid, has instituted the Bellmon analysis. However the analysis has been sectoral and therefore not concerned with localised effects of projects that are small and marginal to overall supply. The analysis is also restricted to the beneficiary country and regional effects are ignored. For example, small monetisation projects are continuing in the Sahel, even though there were record grain surpluses in 2003-04. This may explain the current US NGO interest in strengthening the Bellmon assessment process for these countries as reported on the USAID Food for Peace Website. Other donors do not require a comparable formal analysis. Apart from beneficiary governments themselves, no national or international agency is actually responsible for an overall assessment of the impact of food aid on local production and market conditions.

The growth of local processing and value-added opportunities: The tying of food aid, and especially regulations relating to pre-shipment processing,[14] potentially represent a lost opportunity for local developmental gains and, under certain circumstances, could be detrimental to the primary purpose of food aid. For instance, the provision of a processed food such as potato flakes, with a high water demand in final preparation, is inappropriate in many developing world contexts.

Blended foods present a clear opportunity for gains in both effectiveness and efficiency where procurement could be switched to local or regional processors. Table 2.6 indicates considerable scope for efficiency gains by procurement of CSB and WSB locally and in third countries. Currently much of the third-country sourcing is from European suppliers. However, developing world alternatives such as India Mix, Faffa in Ethiopia and Likuni Phala in Malawi, are available. Encouraging the development of local processing should provide value addition opportunities that create employment and promote inter-sectoral linkages within the recipient economy.

The cost inefficiencies noted in supplying wheat flour and maize milling also suggest that encouraging processing in developing countries by importing grain or sourcing locally should improve cost-effectiveness and provide developmental opportunities. Large-scale mills in OECD countries are likely to be much more efficient in the actual grain processing, making importing more cost-effective. Any short-term saving could be outweighed by the benefits of the livelihood diversification opportunities provided by the growth in local milling capacity.

There are similar possibilities for promoting local processes of non-cereals aid. For example, the direct transfer and monetisation of crude vegetable oil instead of refined oil in Mozambique allowed local refiners to use capacity more efficiently. The proceeds from monetisation supported NGO programmes to increase local oilseed production, processing and marketing, with positive development effects (Tschirley and Howard, 2003).

Tied processed products such as CSB and WSB could reduce the opportunities for, and efficiency of, monetisation as the local markets for these products are less developed. The transaction costs of resale of food received by beneficiaries are also likely to be higher (Tschirley and Howard, 2003).

The development of local market structure: Local procurement can stimulate local market development with an increase in the number of livelihood diversification opportunities provided as traders, intermediaries, and in transport functions. However, encouraging investment in local capacity growth must be assessed carefully. If local procurement volumes are not

maintained or are only a very temporary feature this could lead to damaging investment loss.

The provision of FOREX facilities provides such opportunities for the development of local market structure and institutions. In addition they assist the development of the local capacity for international tendering and trade expertise. The current EC evaluation of implementation of the 1996 Regulation may provide further evidence on this issue.

Trade diversion effects of tied food aids, which are beyond the scope of this assessment, are being investigated elsewhere in a systematic way through formal econometric analysis (*e.g.* OECD, 2003).

Tying as a source of inflexibility that reduces the effectiveness of food aid

The previous discussion in this section deals with effects of tying that might be termed additional, lost opportunities for livelihood asset creation, to the primary purpose. Where the primary purpose of food aid is to provide a safety-net and improve the nutritional status of vulnerable groups, then aid tying can also impact negatively on outcomes.

The tying of aid can make it more difficult to plan transition and exit strategies from programmes such as school feeding, mother and child health and even emergency aid. The lack of financial flexibility can obstruct a smooth substitution to local sourcing for example, and the school feeding projects remain dependent on the continued provision of the tied aid (Bennett, 2003).

In providing tied aid the availability of locally preferred commodities can often be overlooked. Yellow varieties of maize have long been problematic in southern and East Africa, where there is a strong preference for white maize. There are also complex problems of consumer acceptability over specific rice types in West Africa. The list of food aid commodities could also fail to provide the nutritional balance required to improve qualitative aspects of the diet.

In certain cases intended beneficiaries reject "in-kind donations" due to poor quality and incompatibility with the local diet. The type and quality of the food aid may also impact on the enrolment rates in FFW and SFP.

Recipient governments can also reject what is offered because of tied food aid restrictions. Instances are the recent rejection of GM foods in Zambia and India, and the earlier rejection of EU dairy products after the Chernobyl nuclear accident. A lack of commodity choice can lead to programme disruption in recipient countries.

The impact of food aid in emergency situations is heavily dependent on its timeliness and this can be adversely affected by tying. It reduces the flexibility to procure in areas closest to the specific emergency. In addition, earmarking[15] of food aid can prevent operational agencies from diverting food

to geographical areas and users of most pressing need. FOREX provision is potentially more efficient because commercially organised imports are easier to programme and more likely to come quickly, as found in the evaluation of the 1992 drought response in southern Africa (SADC, 1993).

The discussion in this section is based on a number of qualitative examples of negative effects of tying. This is a controversial subject. Alleged negative impacts are countered by arguments that such effects are insubstantial or can be avoided. These issues need to be investigated in a systematic way at a beneficiary country level to develop a body of relevant information and evidence. Such an investigation would be a logical follow-up to the present study and one that allows participation from developing countries.

Notes

1. DAC Revised Guiding Principles for Associated Financing and Tied and Partially Untied ODA (OECD, 1987).
2. Triangular transactions are strictly "third country" actions. These are usually developing country sourced, but some open tender contracts are sourced in OECD countries.
3. A small proportion of food aid reported as triangular transactions in INTERFAIS are actually internationally tendered and sourced in OECD member countries (WFP, 2004b). This was confirmed in the 15 recipient country survey.
4. Efforts were made to ensure that the reported costs were actual costs rather than budget estimates. However in a limited number of cases this was still ambiguous.
5. Another alternative measure of efficiency is to compute the economic cost of providing the aid transfer, which would take into account all the resource costs involved in the production and delivery, including services. In most cases where there are various forms of intervention to support agriculture, the economic cost may well significantly exceed the aid cost.
6. *Sources :* FAO, IGC, WFP and USAID.
7. See following discussion with WFP staff at USD 6 per metric tonne.
8. In some cases this assumption may not hold and so specific commodities were left out of consideration *e.g.* large number of highly specific beans and pulses. Another potentially important and problematic case is white maize for delivery to countries in southern and East Africa. Prices were affected by procurements for emergency food aid operations in food crisis affected countries in 2002-03.
9. For example, in the small island economy of Cape Verde, a long-term recipient of food aid to meet most of its cereal requirements, food imports are increasingly handled by commercial operators (Ferreira Duarte and Metz, 1996). In Bangladesh, with 130 million people at risk to natural hazards, in 1998-99 the greater part of food imports in response to the major flood crisis were organised commercially (Del Ninno *et al.*, 2001).
10. Belgium funded only six triangular transactions as *untied* and *undirected* humanitarian assistance through WFP, *e.g.* leaving the decisions on both sources

of commodities and on destinations and final beneficiaries to WFP. The overall result was strongly influenced by two emergency maize shipments to Malawi, both RTE 172, with very high overland transport cost rates – discussed below in the section on *Recipients*. The Australian RTE is particularly high owing to the large proportion of food aid going to one country, Bangladesh, and the highly competitive possibility of importing wheat from India in 2002 (see also the section on *Recipients*).

11. Japan is an interesting exception, as apparently the accounting of costs for its domestically-sourced rice makes these relatively efficient direct transfers. The procedure for rice donations from Japan involves donations of funds to grain stored in specified warehouses at specified prices.

12. Here high local production costs result in high-cost local purchases. Triangular purchases are often sourced in the Dominican Republic and involve similar production costs.

13. The study confirms the earlier findings of Ferreira Duarte and Metz (1996).

14. The US food aid regulation states that not less than 50% of the quantity of Title II commodities be in the form of processed, fortified or bagged commodities (USAID, 2003).

15. Earmarking is tying to specific recipients.

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Chapter 3

Conclusions

Chapter 3 summarises the key conclusions of the assessment. The chapter highlights that the share of food aid in total bilateral aid has steadily declined from 20% in the mid-1960s to below 5% since the mid-1990s. In addition, food aid levels have become more volatile, which raises questions about the appropriateness of food aid to provide long-term food security. Furthermore, 90% of food aid is tied to procurement in donor countries. The study calculates that this practice comes at a cost. On average in-kind food aid is 50% more expensive than alternative commercial inputs. This suggests that considerable savings can be achieved through flexible sourcing of food aid. These economies would also benefit agricultural development in many low-income countries. Finally, this chapter suggests that further studies should be conducted concerning the issues of additionality of food aid budgets.

Introduction

In the context of the 2001 DAC Recommendation on Untying Official Development Assistance to the Least Developed Countries, which recognised that members' policies concerning food aid may be guided by agreements in other international forums, the DAC asked for an assessment of the developmental effectiveness of food aid and the effects of its tying status. Since substantial work has already been undertaken or is currently being undertaken to assess the developmental effectiveness of food aid, this study focussed particularly on the issue of the tying status of food aid and its implications for aid effectiveness and efficiency.

The study provides the first attempt to quantify the RTE of tied food aid for the wider DAC community, and not just a single donor. The empirical findings are based on information provided by DAC members and other stakeholders, up to 15 July 2004, on their food aid operations during 2000-03 to the following recipient countries: Bangladesh, Cape Verde Islands, Eritrea, Ethiopia, Georgia, Haiti, India, Jordan, Kenya, Dem. Rep. Korea, Malawi, Mauritania, Mozambique, Peru, and Zambia.

Developmental effectiveness

The investigation focused first on establishing the nature of the evidence on food aid performance and its consequences. This involved looking closely at how agencies assess, monitor and evaluate the relationship between their food aid objectives and outcomes – impacts and effects. Second, the study reviewed recent contributions to official and research literature on the effectiveness of food aid. This review looked for evidence that indicates areas and issues on which there is a need to reassess the performance and potential of food aid.

A priori assessment

Food aid has declined in absolute value and relative importance from over 20% of total bilateral ODA in the mid 1960s to below 5% since the mid-1990s. Meanwhile, the share of food for humanitarian relief and crisis related emergency assistance has increased during the 1990s at the expense both of development programme and project food aid. These trends are manifest in the food aid programmes of both the major food aid donors, the United States (over 50% of total bilateral food aid) and the EC (over 10%), and most other DAC

members. Bilateral food aid typically involves development, humanitarian and agricultural ministries or agencies. These relate to international bodies and NGOs, as well as to individual recipient countries. The WFP is the main international channel for food aid, accounting in 2003 for 49% of delivered commodities.

Food aid flows are volatile and highly sensitive to agricultural and trade-related influences in donor countries. These characteristics pose a challenge to those seeking to utilise this distinctive resource, and co-ordinate it with their other development co-operation activities. The fundamental uncertainty of food aid as a resource for supporting longer-term development raises questions about its appropriateness, and is a factor in explaining past performance.

Key research findings

Food aid levels have become more volatile, and the increasing priority accorded in allocations to humanitarian crises implies that some countries and some development activities are likely to be excluded or marginalised within the food aid system. That raises questions about how food aid can be utilised effectively to support longer-term development.

The effectiveness of food-based interventions to promote food security and poverty alleviation and the use of food aid as the transfer mode to support these interventions remains an unresolved issue. Food-based interventions have a role in limiting suffering and the damaging impacts of a shock on household livelihoods. Finance for locally sourced food or imported food aid can and should play a role in supporting such interventions. The effects are dependent on the specifics of the local context and include: *i*) whether food aid is transfer efficient; and *ii*) whether other potential developmental implications of food aid are taken into account. Recent investigations about the impacts of food aid on local agricultural development, food consumption and economy-wide benefits in recipient countries are inconclusive. Most independent reviews of food-aided development activities range from being guardedly positive to being, on balance, negative. The implication of evidence-based research is that context-specific influences are extremely important, if not dominant, in determining actual outcomes.

Emergency food aid plays a clear and crucial role in saving lives and limiting nutritional stress in acute crises, caused by conflict or natural disasters. However, there remain shortcomings in these crisis responses, the importance of which should not be minimised. Furthermore, there is a lack of robust evidence quantifying its positive impact.

Programme food aid has declined following a sequence of critical evaluations in the mid-1990s that highlighted a combination of a lack of

effectiveness and poor transfer efficiency. Furthermore, the volatility of food aid allocations complicates effective programming. There is lack of evidence on more recent programme aid performance.

Project food aid is used for direct distribution or monetisation. Evaluations of the impact of project food aid for *direct distribution* range from moderately positive to extremely negative, and this diversity is widely accepted as a reflection of the lack of firm evidence. More generally, all major reviews of project aid concluded that food-based interventions are more likely to succeed when integrated as a component of wider sectoral programmes. However, robust evidence is still awaited on the consequences of the more recent changes in project food aid. *Monetisation* is seen by proponents to be a justifiable measure where direct food distribution is locally inappropriate and where there are opportunities for supporting cash-based food security and poverty reduction. Other necessary conditions for successful monetisation are that the selected commodity imports can be sold without negative impacts on local and regional markets and there is a favourable policy environment. However, the available evidence is considered to be inadequate to isolate either the developmental consequences or efficiency of monetisation, and a fuller evaluation is needed, including impacts on local and regional markets.

In most circumstances, financial aid is the preferable option as either a crisis response or as support for longer-term development. Where there are well-functioning markets and public action is not seriously compromised by poor governance, then financial aid is usually the most effective and efficient way of funding direct distribution of food, or providing budgetary support for general development or project assistance. Therefore a context-specific rationale is always required for importing food aid in preference to providing financial aid.

The role of the tying status of food aid

There is consensus that, according to the DAC definitions, food aid continues to be overwhelmingly tied, around 90% falling into this category. *Direct transfers*, procured in the donor country or market, are the closest approximation to the DAC definition of tied aid. *Triangular purchases,* typically acquired in one developing country for use in another, would be expected to most closely approximate to an unrestricted commercial transaction or international competitive tender, if the procurement process is competitive or sensitive to international market prices. *Local purchase* of food for use in the same country would be economically rational where the domestic price is below the import parity price and so, in effect, this is a *non-tradable* good.

In the study complete cost data were obtained for 1 119 food aid transactions, involving almost three million tonnes of commodities in ten

categories, delivered as food aid between January 2002 and June 2003 to 15 case study recipient countries, and financed by 16 selected OECD member countries, as reported in WFP INTERFAIS. In tonnage terms 67% was wheat, 12% maize and over 5% corn soya blend, and the remainder made up of vegetable oil, rice, and highly processed and fortified cereals. The greater part of food aid involves widely traded commodities. Thus, it is possible to undertake an analysis of the RTE of food aid by comparing the actual costs to the funding agency of individual food aid transactions, including procurement and shipping, with food imports that could be tendered on the open international market.

The overall transfer efficiency cost of surveyed food aid was 27% (RTE: 127). For direct transfers the overall cost inefficiency was 34%. In contrast, triangular transactions were relative efficient with an RTE of 101. Local purchases were the most transfer efficient, 12% less than commercial imports (RTE: 88). The sample estimate understates the implied global costs of aid tying and providing commodity aid in 2002/3. This is largely because globally, a higher proportion of food aid was organised through relatively more costly direct transfers. An estimate of the overall inefficiency of global food aid was 30%, based on the proportions of direct transfers and developing country acquisitions funded by DAC members. The actual costs of local purchases and triangular transactions, as reported by donors and operational agencies, were approximately 46% and 33% less than those of tied direct aid.

It should be emphasised that these results are lower limit or conservative estimates of the efficiency costs of donor providing tied food aid. Furthermore, there are transaction costs of organising and importing food products that are not reflected in the efficiency calculations. These costs include administrative costs of organising acquisition, processing and shipping; internal transport from port or border to centres for distribution or sale; storage and handling; and sales costs for monetised or programme aid.

There was also a wide range of RTE ratios amongst donors, modes of supply, commodities and destinations ranging from 10% below to almost 50% higher than the cost of alternative commercial imports. The influences on transfer efficiency such as the types of operation undertaken, mode of supply and other donor practices, include the following:

- The most resource transfer efficient forms of food aid were protracted or continuing relief operations, flexibly sourced by untied funding, either locally within the recipient country or from third countries, but not necessarily always a developing country.
- Those donors who have formally untied or have the least restrictive procurement rules provided the most cost effective food aid. All those who

generally tie their food aid also funded some local and triangular purchases, and these actions were relatively more cost effective than their tied aid.

- Some tied aid was quite efficient, depending on the accounting prices used by the donor, the destination and whether the commodity was selected to be sold or directly distributed.
- Monetised actions using tied aid appeared to be relatively transfer efficient, but overall efficiency cannot be properly assessed without complementary evidence on efficiency in generation of local currencies from sale of imported food, including associated transaction costs.
- Direct food aid was almost invariably more costly than alternative commercial imports or actual local purchases or triangular transactions.
- Amongst the foods surveyed the largest difference (68%) in RTE was between local purchases and direct transfers of highly processed and blended cereals from OECD countries. This form of aid is not only highly inefficient, but it also is a missed opportunity to promote local agri-processing.
- The relatively high costs of NGO emergency operations and of project aid for direct distribution have implications for the efficiency of food aid as currently sourced.
- Organisations specialising in procurement and logistics (*e.g.* WFP) appear relatively more cost effective in their local purchases and triangular transactions. Cost differences are not purely a matter of transaction scale, but perhaps also of the scale of operation and the accumulated skills and experience of the organisation.

The implication of the study is that there is scope for considerable efficiency gains in untying food aid and switching to less restricted sourcing. Through untying, donors could significantly increase the volume of their food aid and/or make substantial efficiency savings. Triangular transactions were a third less costly than direct aid. Unrestricted sourcing would be expected to achieve even greater cost savings. The relative efficiency of local purchase and restricted third country purchasing also suggests that benefits of untying would not just flow to middle income agricultural exporting countries. Greater donor flexibility in sourcing would benefit agricultural development in many low-income developing countries.

Issues for further investigation

The results of this study and the process of consultation on the Progress and Draft Reports have served to identify issues on which further investigations are needed to complete the assessment of the developmental effectiveness of food aid and consequences of its tying status, which the DAC was seeking in commissioning the study. Overall, further investigations could

be directed towards clarifying what forms of food aid-related transfers could be considered as "genuine food aid".

Positive effects of additionality: There are two counter arguments to the difficulties of utilising food aid as humanitarian assistance or as a resource for development under the restrictions of donor direction and sourcing and the inefficiencies of tied aid. First, it is argued *that food aid is at least partially additional to other ODA*. Second, it is argued that food aid is in the short-term *potentially an additional resource for specific agencies* that have an opportunity to use it effectively. These arguments are based on the presumed additionality of food aid, which fell outside the terms of reference of the study. They merit careful consideration, taking into account evidence on the recent experience of different donor programmes in both untying their food aid and allowing themselves greater flexibility in the use of funds earmarked for food aid.

Food aid tying is likely to have other *negative effects* apart from efficiency costs. Multiple objectives imply trade-offs and the empirical issue is to determine the nature and extent of these effects. These are issues that are not usually made an explicit focus of evaluation studies, and so only indirect, qualitative evidence is available to a desk-based study. Thus more systematic investigations are needed. These issues could usefully be explored in more depth at a recipient and regional level, for example within Africa. All are specific issues associated in various ways with the tying status of food aid and on which further investigation could contribute to increased aid effectiveness, including efforts to use funding to support food-based programmes in more flexible ways.

Resource uncertainty and development effectiveness: The consequences of resource uncertainty which is associated with direct transfers and also potentially with attempts to source food based programmes locally or within the region should be assessed systematically. In particular, are there ways in which policy and management practices can make food-based programmes less sensitive to the funding variability associated with food aid?

Other potential consequences of tying identified in the ToR for the study that need to be investigated further at a recipient country and regional level include: *i)* spill-over effects on recipient country domestic and regional markets, including linkage effects such as the potential for hindering or promoting local agri-processing; *ii)* impacts on poverty reduction and long-term food security; *iii)* aspects related to local ownership, *i.e.* the extent to which the provision of food aid has been provided in the framework of national strategies for development, including crisis management.

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ANNEX A

Information Collection and Consultation with DAC Members and Other Stakeholders

Members and other stakeholders

The DAC contacted the EC and the 15 member countries that had been selected for inclusion in the assessment (Table A.1) about the study and additional information requested. The team then followed by requesting help from individual member countries. Initially attention focused on member countries and organisations with larger food aid programmes. The team then extended the survey to some of the members with relatively smaller food aid programmes. In this way the study provided an overall picture of the performance of food aid. Some member states provide food aid almost

Table A.1. **List of surveyed recipient countries, commodities and donors**

Recipients	Commodities	Donors
Bangladesh	Corn soya blend	Australia
Cape Verde	Maize	Belgium
Eritrea	Maize meal	Canada
Ethiopia	Rice	Denmark
Georgia	Sorghum	EC
Haiti	Sugar	Finland
India	Vegetable oil	France
Jordan	Wheat soya blend	Germany
Kenya	Wheat	Italy
Korea, Dem. Rep.	Wheat flour	Japan
Malawi		Netherlands
Mauritania		Norway
Mozambique		Sweden
Peru		Switzerland
Zambia		United Kingdom
		United States

entirely through the WFP, and in these cases most of the information proved to be available at WFP.

Members of the study team have made visits to the European Commission in Brussels, the International Grain Council in London, the WTO in Geneva, CIDA in Ottawa, the WFP and FAO in Rome, the Netherlands Government and Euronaid in the Hague, US federal government agencies, the World Bank, NGOs and other organisations based in Washington, D.C., as well as the OECD DAC. The team also consulted other DAC members including Australia, Belgium, Denmark, Finland, Germany, Italy, Japan, Norway, Sweden, Switzerland and the United Kingdom by email and telephone. The process of consultation was facilitated by comments on the second progress reports on the study and related briefings to the Agriculture and Trade Working Group of the OECD and the Food Aid Committee in London in June 2004. There has been a generally high level of interest in the study on the part of those contacted. However, some DAC members apparently found it difficult to provide detailed information on food aid expenditure for food aid actions during 2002/3 in relation to the 15 case study countries (Table A.2).

The scope for further visits and field work was severely limited by the time, human and financial resources of the study. None of the case study countries could be visited in the preparation of the draft report.

Table A.2. **Donor transactions with complete cost data**

Donors	Number of transactions	Quantity metric tonnes	Original sample transactions (%)	Original sample tonnage (%)
Australia	24	144 643	96.0	96.1
Belgium	6	3 140	85.7	80.2
Canada	84	209 620	95.4	98.3
Denmark	39	16 727	95.1	96.0
EC	122	476 356	75.8	76.8
Finland	24	8 021	85.7	95.7
France	15	44 653	93.8	90.8
Germany	111	102 541	94.9	96.9
Italy	26	39 373	63.4	46.2
Japan	42	146 926	91.3	94.0
Netherlands	83	44 901	97.6	93.1
Norway	32	68 354	94.1	99.7
Sweden	58	26 002	100.0	100.0
Switzerland	19	8 955	90.5	98.3
United Kingdom	46	120 220	97.9	99.9
United States	388	1 535 057	92.4	86.5
Total	**1 119**	**2 995 489**	**90.5**	**86.7**

Note: Survey data available as of the 13th July 2004 from DAC members.

ANNEX B

Selected Literature Review

Evidence on developmental effectiveness

A literature review and information from donor agencies suggest that there has been limited new evidence on the *developmental effectiveness* of food aid in the last five years. Donor funding of research and researchers' interest in the issue have been influenced by three factors related to the categories of food aid that have been given donor priority.

Emergency aid, which is provided for relief or rehabilitation, has increased in importance, accounting for around half of the commodities shipped between 2000 and 2002. Consequently, emergency aid as a large component of humanitarian assistance has been the major focus of attention in evaluations and research on food aid (ALNAP, 2004).

Programme aid, following a sequence of highly critical evaluations and studies in the 1990s, has declined from being the main use, around 60% in the mid 1980s and 1990s, to only 22% in 2002. There have been few recent studies or evaluations of this decreasing sector. Nevertheless, programme food aid continues to be a significant element of US and EC food aid. Changes in legislation between 1990 and 2000 have placed the US food aid budget lines for programme aid under the responsibility of the US Department of Agriculture, which does not undertake systematic evaluations of the performance and impact of these programmes. However, there is a legislative requirement for a "Bellmon determination" which prior to now assesses any potentially major impacts approval of an action on agricultural production and market in the recipient economy (USAID, 1985). The EC continues to provide programme aid under the 1996 Regulation as "foreign exchange facilities" (European Council, 1996).

Project aid, linked to specific development uses, represents around 30% of recent food aid. Donors and agencies, acting on earlier reviews, appear to have recognised the lack of evidence and have begun to fund and require more assessment of performance. There were already two major evaluations on WFP and EU aid underway, which should provide more evidence on the

effectiveness of project aid. A major Joint Evaluation of WFP Enabling Development Policy was begun in 2003, but the revised timetable for that evaluation precluded the results being available before the completion of the DAC study (DRN, 2005). The European Commission (EC), the second largest food aid programme, also has been evaluating the effectiveness and efficiency of food aid under its 1996 Regulation, but the report became available only in late in 2004 (PARTICIP and Associates, 2004).

USAID now requires that NGOs should systematically assess all new projects, including appraisals, mid-term and final evaluations. However, this accumulation of new evidence awaits more systematic overall assessment. An evaluation in 2002 provides only a qualitative assessment of project performance, indicating the need for more systematic monitoring to provide a more robust basis for determining, for example, nutritional impacts (Bonnard *et al*., 2002). IFPRI's Food Consumption Nutrition Division has initiated a series of in-depth studies on selected WFP-supported projects directly providing food assistance. The results of these studies should help to clarify conditions under which direct food assistance may contribute to improved nutritional status. Such exemplary studies also indicate the potential for further investigations. Meanwhile, an assessment of developmental effectiveness still has to rely on the considerable body of research undertaken in the 1980s and 1990s. This point is supported by the range of sources and references found in recent reviews (*e.g.* Pillai, 2000; Merbis and Nubé, 2001; Hoddinott *et al*., 2003).

In this review we have accepted the conventional classifications of development food aid as project and programme aid. The review also adopts the fundamental distinction between food for direct distribution and food for sale. Project food aid, provided in support of food-based interventions that directly distribute food, has a different impact on the local economy and society from food aid, sold on the market of recipient countries to generate local currency support, whether classified as project or programme aid (Clay and Stokke, 2000; Timmer, 2003; Reutlinger, 1999). The latter necessarily involves direct intervention in local food markets whereas the former has only indirect impacts through changes in demand on the part of recipients, or through resale or leakages.

A sectoral review of project aid for direct distribution in this annex is followed by the review of food for sale covering programme aid, dairy development and monetisation.

Project food aid: direct food assistance and development

The rationale for project food aid as an appropriate development resource rests on the assumption that it can be used more discriminatingly, and so be

targeted at the neediest groups and achieve sustainable results. During the 1990s, definitions and conceptual analysis focused on poverty reduction and food security. However, the focus has recently shifted to reducing the vulnerability of poorer households, communities and regions to shocks, including natural disasters, economic instability, political insecurity and health risks (*e.g.* Haddad and Frankenberger, 2003). For example, the destabilising potential of HIV/Aids is separately identified. This shift in objectives implies that the assessments of past performance are relevant, but not wholly so, to immediate policy. Project goals used to be broad-based economic development and increasingly these have become poverty reduction through promoting agricultural development, and human capital formation. The direct distribution of food provided through food aid has involved three broad sectoralised forms of intervention.

Labour-intensive public works has combined the generation of employment and income transfers with investment in agricultural, infrastructure and natural resource management.

School feeding programmes, distributing food to children or take-home rations to families, combined educational goals (*e.g.* improved enrolment and attendance, gender balance and enhancement of the cognitive element of academic performance) with nutritional improvement.

Supplementary feeding programmes often associated with health institutions, particularly mother and child health initiatives, combine health with more specific nutritional and broader poverty alleviation objectives.

The direct provision of food assistance to targeted beneficiaries is organised within one of these areas, as is the evidence on performance and developmental effectiveness summarised below.

Labour-intensive public works

The single most important resource that most people have is their own labour. It has long been argued that this resource can be utilised to address problems of poverty and hunger whilst also developing physical capital through the medium of labour-intensive public works. The form of labour-intensive works can vary greatly, ranging from relief providing temporary wage employment in a crisis situation to long-term employment programmes designed to support livelihoods of poor groups. Payment is made in the form of either CFW or FFW.

There is a broad consensus on the appropriateness of labour-intensive works in contributing to livelihood security and poverty alleviation (*e.g.* Drèze and Sen, 1989; Von Braun, 1995). However, controversy continues about the relative effectiveness of cash and food as wages for these activities. Nor is there any agreement on whether food-based labour-intensive employment is

an appropriate, effective intervention for creating sustainable infrastructure and productive assets, or in contributing to human capital formation.

Livelihood security and works-based safety-nets

The impact of public work programmes on livelihoods needs to be considered in terms of reducing vulnerability to periodic shocks and longer-term poverty reduction. In South Asia works programmes, originating in emergency programmes, were successfully expanded to provide employment and income transfers to the rural poor experiencing income variability due to seasonal under-employment. The state-run employment generation schemes (EGS) in India assure unskilled labourers cash-wage employment on rural infrastructure works and play an important role in combating seasonal malnutrition and insecurity. The Bangladesh FFW programme similarly provided slack season employment for landless and marginal farmers when demand for agricultural labour was low. The programme was also relatively successful in targeting women in female-headed households with limited other employment opportunities. The appropriateness of labour-intensive works in sub-Saharan Africa continues to be controversial. Some argue that works are a viable strategy for poverty alleviation in Africa when local population densities reach high levels, (Von Braun *et al*., 1991). FFW projects have been expanded during short-term shortages, preventing the need for distress migration (Bonnard *et al*., 2002). The success of some schemes, for example in Zimbabwe (Webb, 1995), is disputed by others, especially in a crisis context (*e.g.* Devereux *et al*., 1995). Problems of project effectiveness have largely been encountered where rural works had multiple goals. For example, projects with short-term goals providing income transfers have also been expected to have a long-term sustainable impact through asset creation or nutritional improvement. This has led some, for example Hoddinott *et al*. (2003), to argue that food-based works should be organised to fulfil an insurance role, as a safety-net to minimise the impact of shocks. In practical terms, this implies primarily a livelihood sustaining objective. Longer-term developmental benefits would arise from minimising the destabilising effects of shocks on poverty through asset loss and irreversible damage to human capital, through impaired growth of children.

Asset creation and sustainability

Where income generation through employment creation is the primary objective, the appropriateness or quality of investment undertaken through labour-intensive rural works is a recurrent theme in assessment and policy analysis. The assets created are often found to be of questionable quality and frequently left to deteriorate. A recurrent problem is the degree to which assets created reflect the technical administrative capacity of the

implementing agency, rather than the needs and interests of the wider community. Complementary management, design and other skilled technical inputs are commonly reported as inadequate. The involvement of beneficiaries in the planning stage of a project is often inadequate. This risks a perception of lack of ownership on the part of a community towards the assets, contributing to lapses in maintenance and upkeep. However, as in the case of flood control structures in Bangladesh, local influence on siting and design of structures can be counter-productive if these do not form part of a coherent overall scheme for drainage and flood control.

The long-term success of all works projects depends on the rights of beneficiaries to use the assets created, which they are expected to maintain. The joint evaluation of WFP agricultural development-oriented programmes indicated that the long-term benefits of the new infrastructure are often appropriated by the better-off members of the community (CMI, 1993). Even redistributive tax measures implemented in the EGS in India failed to redress this imbalance (Hirway and Terhal, 1994).

Targeting the poorest

The performance of public works in successfully targeting the poorest is mixed for both cash- and food-based employment schemes. The cash-based EGS in India had high levels of participation by the poor, paralleled by experience in Bangladesh. Reviews of targeting in Ethiopia, the other case study country with large-scale rural works interventions, found a mixture of inclusion and exclusion errors. There were high levels of inclusion errors, participation by less vulnerable members of the communities and less vulnerable communities (Clay, *et al.*, 1999). Possible explanations for inclusion errors include the following factors: targeting on the least food-secure households was difficult at a community level; the inertia factor in geographical targeting made it difficult to prioritise the current more insecure areas (Jayne *et al.*, 2002); less vulnerable households are more likely to have surplus labour and so be able to access works opportunities without sacrificing other sources of income; targeting systems are also open to manipulation by those in power who may have difficulty in excluding the less poor on moral or political grounds.

Exclusion errors are often significant. Many of the most vulnerable are least able to participate for reasons of ill-health, disability and competing demands on time. This is especially so for female-headed households. Female participation appears to be a particular problem in societies with strong gender discrimination or where women have predominant responsibility for small-scale agriculture. However, targeting women and the elderly can sometimes result in the over-representation of these groups amongst

beneficiaries (Clay *et al.*, 1999). These contrary examples indicate that successful targeting systems need to use truly needs-based criteria, rather than falling back on preconceived notions about who the vulnerable are.

There is growing recognition in the policy literature of the need to improve targeting, via techniques such as "vulnerability mapping", to focus resource use. Targeting in relatively poor communities may be problematic in the long term because pressures inevitably increase to include those excluded by targeting or to redistribute income transfers.

Cash or food wages?

A priori, the mode of payment should be determined by local conditions, including the market situation, the specifics of likely household food consumption behaviour and the indirect effects on non-participating, vulnerable groups. In circumstances of food scarcity, payment in kind has the advantage of providing food to the hungry, whilst simultaneously augmenting local supplies. If food supply is highly inelastic in the short term, cash payments without a complementary injection of food would raise prices for excluded groups (Basu, 1996). In circumstances of high inflation, payment in food is more likely to be appropriate as it maintains the real value of wages to the beneficiary. The use of food as a wage can lead to increased calorie consumption at the household level. However, such arguments do not constitute a sufficient reason for payment in kind. Some of the more successful rural works programmes, ranging from the vast EGS in India to small island programmes in Cape Verde, combine cash wages with complementary market interventions to ensure food availability and stable, often subsidised, prices for consumers. In Bangladesh CARE transformed its support to the rural works programmes, switching from direct food-based wages to using monetisation to provide both cash wages and complementary non-food inputs. A serious disadvantage of a food-based wage, especially where it represents a major or the only source of income, is the transaction costs for beneficiaries, who are obliged to sell part of the wage to purchase other necessities.

A proclaimed strength of food-wage vs. cash-wage employment is that this resource provides an effective means of reaching specific beneficiary groups. The assumption is that a food wage is in itself targeting. That is, only the poorest will work for self-targeting commodities at wages set below the market rate, or engage in the strenuous labour specifically required in FFW. Apart from problems affecting targeting already noted, some potentially vulnerable groups, including the elderly, disabled, and those too distant to allow regular travel to work sites, may be excluded. Delays in the provision and distribution of food commodities have also disrupted works programmes.

For example, Ethiopian EGS scheme reports long delays in food payments. Some targeted beneficiaries choose not to participate, being unable to defer income until commodities become available.

The potential disincentive effect of food wages on beneficiaries' agricultural production is a frequently voiced concern. There is little empirical evidence of reduced involvement in farming by participants in FFW programmes. In Ethiopia, Hoddinott (2003) suggests that modest, direct disincentive effects are compensated by other non-farming employment creation indirectly from the income-generating effects of the works programme. In Bangladesh, timing of works programmes, rather than mode of payment, has been the critical factor in determining participation and competitive effects on agricultural wages of largely landless labourers. Practically works mostly involving earth-moving are difficult to organise following severe monsoon flooding and the pre-harvest hunger period (September – October). The second period of low employment used to be in the dry winter season and was also suitable for large-scale food-based rural works. However, the expansion of irrigation-related crop production and other non-agricultural continuous work reduces the unemployment gap for the able-bodied. Other non-work-based entitlement and safety-net programmes may therefore become more appropriate.

Efficiency considerations

Cash wages would *a priori* be more efficient than food payments when handling and transportation costs for project organisers and participants are taken into account. In Bangladesh, it is estimated that cash- rather than food-wages could reduce programme costs by 25% by removing commodity-related transaction costs (Ahmed *et al.*, 1995). The need for beneficiaries to sell a portion of their food wage, when it constitutes a large proportion of household income, in order to meet other needs is a further transaction cost sometimes ignored in cost-effectiveness calculations. The organisation of food-based works on a temporary basis for those affected by crises, as in Malawi or Zambia, and only temporarily in difficulties, is potentially very costly.

There are also potential disincentive effects on agricultural production through a reduction in demand for domestically produced commodities. As Bangladesh has moved towards self-sufficiency in rice and as domestic wheat production has expanded, the levels of directly distributed wheat needs to be substantially lower than previously supplied (Dorosh *et al.*, 2001).

A further consideration influencing the choice of food or cash is aid resource availability. The monetisation option, often taken up by US NGOs when undertaking rural works or when selecting alternative ways of promoting food security, indicates a range of circumstances in which food for work is

considered less appropriate. Sometimes, and especially in emergency situations, it may be administratively easier for operational agencies to obtain food, rather than finance, for cash-for-work activities (Somner, 2003).

To summarise, the choice of payment mode should be largely determined by the functioning of the market, especially when a crisis event has occurred, and there are targeting considerations. When the market is functioning relatively efficiently, cash payment may be a better option. It is more easily monitored, creates a demand for local food production and is easier to handle. Where markets are poorly integrated and there are serious imperfections or high inflation, payment in kind may be the preferable short-term option. Sometimes a mixture of food and cash wages may be the best option, providing greater flexibility for both implementing agencies and beneficiaries. Further consideration is the indirect impact of the intervention on those excluded from the programme. The appropriate choice of payment in rural works should take account of other complementary interventions. There is a need for decisions to be made on the basis of a careful consideration of local conditions.

Role for food aid

Efficiency is a fundamental question as to whether food aid is a more suitable way of supporting FFW activities. Transaction costs, including local transportation and storage, as well as the supply costs, are considered in Chapter 2 of the main report. Another factor is the appropriateness of the commodities with which to make payment.

The appropriateness of direct tied aid is contingent on local acceptability. For example, wheat in Bangladesh and yellow maize in Mozambique was more likely to target poorer rural households in the 1980s and 1990s. However, programme sustainability is a further consideration. Where there are large fluctuations in domestic food markets, as in southern African countries, switching between imported and local acquisitions may be desirable but technically difficult. Longer-term sustainability may be an issue if donor funding is short-term relief related.

In summary, the evidence on the role of labour-intensive works in achieving poverty reduction in the long-term is mixed. The record of sustainable asset creation is poor but there have been many positive impacts on short-term food insecurity in situations of food shortage and also in providing a safety-net for the vulnerable poor. This mixed record is partly the result of over-ambitious project designs combining difficult to reconcile short- and long-term goals, and partly because implementation of rural works is difficult in some country circumstances.

The role of food aid in supporting effective and efficient FFW programmes appears to be more appropriate in situations of market failure and food scarcity, likely to be found in crisis and post-crisis rehabilitation situations. In these circumstances, food aid distributed as wage payments can be crucial in maintaining household consumption at adequate levels, providing that appropriate and effective targeting is undertaken to reach the poorest. There is a further challenge in ensuring a timely transition to cash-based schemes or other non-work interventions where there is continual need for a poverty-alleviating safety net. With food market liberalisation, CFW may become more suitable than FFW, because the administrative channels through which food aid once flowed have been dismantled. Monetisation and the use of sales proceeds to fund CFW could then have a useful transitional role in the system.

Impacts on nutritional and health status

Assessment of the role of public works, and FFW in particular, on nutritional status in poor and vulnerable individuals has proved inconclusive. It is sometimes argued that providing food rather than cash as a wage results in increased household consumption, particularly if the wage is controlled by women. However, as already noted, increased consumption does not automatically translate into improved nutritional status. Furthermore, there is growing recognition that nutritional impacts depend on the way specific modalities of intervention interact with a complex local social situation, as well as the health environment.

Assessments of FFW in Bangladesh have shown positive impacts on calorie consumption of participating households but measured impacts on nutritional status are not established (Ahmed *et al.*, 1995). This is a problem common to many studies which focus on food expenditure or apparent calorie intake, taken from expenditure and consumption surveys. These do not provide anthropometric monitoring of nutritional status. A major reason for lack of impact is the "thin-blanket" in which food is distributed so widely that the neediest receive too little for there to be any significant effect on their nutritional status. Employment generation schemes in Ethiopia illustrate this phenomenon, including redistribution of work-related rations amongst a wider community (Sharp, 1997).

Female-controlled income is usually associated with higher household food expenditure and nutrient intake than income control by men. So targeting FFW at women is argued to place valuable and empowering resources in the hands of the family member most responsible for food security. Evidence from a number of studies in different geographical locations confirms that nutrient intakes rose more quickly as women's

incomes increased. Also maternal income had some significantly greater effect than paternal income on child anthropometric indicators.[1] More in-depth investigation into intra-household consumption and nutritional status also provides a caution against simplistic assumptions about the likely impact of food-based interventions on the nutritional status of children, for example, according to gender. Quisumbing found in Ethiopia that FFW and free distribution had positive direct impact on short-term nutritional status (weight for height). However, free distribution was associated with relatively improved nutritional status for girls, whereas FFW was associated with differential improvement in boys. The implications of maternal work outside the home for child care and child nutrition also need to be considered. The evidence so far is mixed – some studies have demonstrated negative interaction effects between maternal work and the nutritional status of children, whereas other studies have noted positive effects (Engle *et al*., 1993). The complexity of nutrition and health interactions as well as strongly context-specific and rapidly changing economic influences on household behaviour, preclude simplistic assumptions about the likely nutritional implications of cash- or food-based wages.

School feeding programmes

A significant, but not yet fully documented, increase in school feeding programmes (SFP) has occurred over the last five years. WFP estimates USD 200 million of operational expenditure in 2003 on school feeding programmes, including emergency, recovery and development projects. The US launched a pilot Food for Education programme in FY 2000 with an initial USD 300 million infusion of surplus commodities under Section 416(b). In FY 2002 the programme involved USD 54 million commitments and 278 000 tonnes of food in 27 countries. The programme is now authorised up to FY 2007, with USD100 million initially earmarked for FY 2003 and USD 50 million in FY 2004.

Factors explaining the increased priority for school feeding programmes include:

- Pre-determined donor resources, partly as a response to MDG goals for education and gender equality.
- Role of educational institutions in emergency food aid.[2]
- Visibility and popularity of school meals and take-home rations in the general population.
- Providing a vehicle for indirectly addressing specific contemporary problems, such as HIV/AIDS.

SFP play a role in the provision of safety-nets, as discussed above. They are both attractive and controversial because of multiple objectives, including food security and nutritional improvement, along with educational objectives.

A recent review indicates continuing controversy owing to the reputation for being expensive to operate and difficult to implement (problems of efficiency). In addition their effectiveness in meeting objectives is not convincingly substantiated by the evidence (Bennett, 2003). The mixture of food security and educational goals creates conceptual and evaluative problems. SFP objectives often differ with respect to the project cycle (emergency/recovery/development) and the geographical locality compounds these problems. Weak monitoring and evaluation systems have been a recurrent problem of SFP, as reflected in both earlier and more recent attempts at assessment (*c.f.* Figa-Talamanca, 1984, and Levinger, 1986, with Bennett, 2003, and Bonnard *et al.*, 2002). Bennett draws attention to weak monitoring systems: "Few comprehensive base-line studies have been undertaken and monitoring systems have emphasised output rather than outcome indicators, making the quest for longer-term impact measurement an elusive goal." There are indications that WFP, for example, is making a systematic effort to improve the monitoring of school feeding programmes (WFP, 2004a), but, as yet, the only robust indicators are associated with school enrolments and attendance.

Effectiveness and impacts

The recent review by Bennett concludes with the following assessment of the links between possible SFP goals and assessment of the evidence to support them:

- Alleviate short-term hunger – evidence strong.
- Increase enrolment and attendance – evidence strong.
- Reduce the educational attainment gender gap – evidence strong.
- Improve micro-nutrient status – evidence available from only a few programmes.
- Improve learning outcomes – evidence weak.
- Raise community participation – depends on modalities and local circumstances.
- Improve health and nutritional status of school children – evidence weak.
- Improve health and nutritional status of children's families – circumstantial evidence only.

Bennett further notes difficulties in drawing overall conclusions because of significant country and regional differences in the balance of objectives. In Asia and Latin America emphasis has mostly been on nutritional and cognitive objectives where attendance is relatively high. By contrast, in sub-Saharan Africa, and especially in emergencies, SFPs are mostly designed to re-establish or increase attendance and enrolment.

For the poorest families there are access problems with SFPs, plus the opportunity costs of lost child labour and exclusion errors. Therefore they rarely address the problems of the poorest 10%. There is a parallel problem of substantial inclusion errors because, where communities are, in general poorer, there are difficulties in targeting only the poorest children and families.

Efficiency issues

There is a lack of solid evaluative evidence comparing the costs of SFPs with other food-based interventions or other ways of promoting educational objectives. There is an urgent need for such evidence because there are widespread concerns that SFPs are expensive to operate due to inclusion errors, difficulties in effective targeting and management requirements. There is, however, substantial evidence that learning and nutritional objectives are unlikely to be satisfied unless food-based intervention is complemented by health measures (*e.g.* de-worming programmes), complementary education-related investments and increased recurrent expenditure on buildings, equipment and staffing.

Sustainability

SFPs are often shown to be successful in achieving process outcomes, especially in a crisis situation and high enrolments where these are low. Despite the commonly asserted "self-evident' links between improved short-term nutritional status and children's capacity to learn, the evidence on sustainable development impacts has proved elusive. Multi-year funding for assured levels of food commodities would seem to be a necessary condition for achieving and maintaining process outcomes, such as attendance and reaching learning goals. Furthermore, community ownership and alternative sources of funding are necessary to ensure sustainability. A short- or medium-term nutritional contribution for those receiving take-home food at school of itself contributes little to improving food security, unless it forms part of a wider, food security-focused effort.

Issues for further investigation

The lack of compelling evidence on the effectiveness and sustainable impacts juxtaposed with resurgence in this use of food aid is puzzling. The monitoring of SFPs even with baseline data often lacks any related demographic data. Nutritional monitoring may eventually provide convincing evidence on the circumstances in which these programmes are more, or less likely, to have significant educational or nutritional benefits. Meanwhile, recent experience raises questions about the time profile of intervention.

Many SFPs appear to be introduced in emergency and post-crisis situations with the dual objectives of providing a food security safety net, and sustaining school attendance. These are likely to be conditions under which other complementary investments in health and education are lacking. Furthermore, the food resources are often uncertain, depending on emergency programmes of short duration and, recently, pilot programmes with highly variable levels of funding and resource commitments.

There are other circumstances in which interventions may be more likely to succeed. First, where the education system is in place, but there is widespread poverty and low, particularly female, participation. SFPs, as an additional intervention, may be successful in the short- to medium-term in improving attendance, as in the much-reported Bangladesh case (Ahmed *et al.*, 2002; 2003). Furthermore, the recent evolution of this programme to a cash-based incentive for attendance with snacks in schools may offer an example of transition to a non-food-based sustainable programme (Bennett, 2003).

Another relatively successful option is where there is already a high level of attendance, but significant poverty-related levels of ill-health and poor performance remains. SFP, combined with health inputs in geographically targeted schools, may be effective in achieving human capital investment through improved health and attention. For example, Pillai (2000) draws attention to the relative success of programmes in Jamaica with near 100% attendance levels. Mexican programmes' health and nutritional successes are also linked to very high attendance levels.

A worrying feature of the recent upsurge in food aid to SFPs is that these initiatives do not appear to have been built upon attempts to understand lessons from previous SFPs. Instead initiatives have been strongly influenced by the temporary, not necessarily assured, food resources being committed by donors (Bennett, 2003; US General Accounting Office, 2002).

Supplementary feeding programmes

This term is a wide-ranging one and embraces interventions including Mother and Child Health and Nutrition programmes (MCHN), Vulnerable Group Feeding (VGF) and Therapeutic Feeding Programmes (TFPs). Besides improving the nutritional status of mothers and pre-school children, MCHN objectives include improved health and nutrition knowledge and practices together with the generation of supplemental income through small enterprises and gardening. VGF programmes encompass purely safety-net transfers, *i.e.* MCHN type interventions, as well as the provision of food to hospitals, orphanages and other institutions. Again, activities go beyond simply dealing with malnutrition to include health education, literacy and other forms of training. IFPs target those severely malnourished as a result of

a shock affecting individuals (idiosyncratic) or a wider event, such as a disaster or conflict. Typically the aim is to rehabilitate affected children and to promote weight gain through use of food rations, in conjunction with medical care and supervision.

MCHN-type interventions became a less important aspect of project food aid in the 1970s and 1980s, because of inconclusive evidence as to their direct health and nutritional effects and sustainable development impact. However, the increasing emphasis on individual food security and human development or capital formation, particularly of women and children, has sustained interest in VGFs.

Effectiveness and impacts

The poverty reduction, nutritional and health aspects of these interventions are complex and difficult to separate, conceptually and practically. Nevertheless there is accumulating evidence that early childhood malnutrition is causally associated with a subsequent loss of stature, schooling and potential lifetime earnings. Pre-school nutritional status is closely associated with chronic poverty and also sensitive to shocks.[3] A host of environmental variables, including environmental health, adequacy of health facilities, and maternal education, influence the health and nutritional status of children (Haddad *et al.*, 1996). The importance of child nutrition explains the attempt to address under-nutrition and malnutrition with food supplementation. However there are inherent difficulties in isolating the impact of food-based intervention from other environmental factors and the influence of other interventions. Isolating the impact of food supplementation makes considerable demands on information, monitoring and assessment, which is impractical for many smaller projects.

Most earlier evaluation findings were broadly inconclusive about the direct health and nutritional effects, as well as the sustainable developmental impacts of supplementary feeding programmes (Figa-Talamanca, 1984). The Tri-Partite Evaluation of WFP (CMI, 1993) concluded that VGF programmes had negligible nutritional impact. They were not addressing root causes of malnutrition and food insecurity and so were simply feeding interventions. They were often organised in isolation from other measures for improved nutritional status, which further restricted potential nutritional impacts. A wide-ranging USA-supported review concluded that MCHN programmes might better serve as income transfers to poorer households (Mora *et al.*, 1990).

The attempt to learn from early experience has taken a number of directions. Following accumulating evidence of the difficulties of making substantial impacts on under-nutrition (protein energy malnutrition), CIDA and some NGOs focused increasingly on improvements in the micro-nutrient

status of pre-school children. USAID Title II programming has encouraged broader-based programmes, combining food-based and non-food components. The latter are potentially fundable with local currency generated by monetisation. WFP emphasises the importance of co-operation with other agencies in providing support for complementary interventions (WFP, 1999). Evidence on the effects of broadening and realigning interventions is only now beginning to become available. So far, emerging results are moderately encouraging, but still inconclusive. The recent evaluation of USAID Title II MCHN Sector Projects concluded: "Overall the development assistance programmes reviewed achieved limited success with respect to the impact on nutritional status. While slightly over half (54%) the projects with indicator data available (90%) achieved some degree of improvement in nutritional status, all of the projects that used a single indicator of nutritional status reported nutritional status improvement compared with projects using multiple indicators to measure their success" (Bonnard *et al.*, 2002). The reasons for the differences are unclear. Evaluators therefore go on to recommend a standardised approach to reporting if sponsoring agencies are accurately to ascertain the impact of MCHN sector activities on nutritional status. A menu of indicators needs to be developed and applied across projects. Without this, conclusions on overall impacts will remain uncertain. This evaluation also found limited improvement in complementary feeding, internal food consumption, micro-nutrient supplementation, personal and domestic hygiene. But the lack of standardisation in the reporting of impact and intermediate result indicators makes it difficult to derive reliable estimates of performance. "One can only hope that the limited analysis done for assessment provides a reasonably good proxy for actual performance" (Bonnard *et al.*, 2002).

Findings are, on balance, positive. Nevertheless, recent changes in resourcing raise unresolved questions. The opportunity for monetisation (US food aid) or the use of finance to promote food security through MCHN allows NGOs the option of including food-based interventions in non-emergency programmes. The evidence available does not show whether this increased funding flexibility is raising the overall effectiveness of food-based projects or food distribution components of broader-based interventions.

Food aid for sale: programme aid and project monetisation

Forms of monetisation

There are four broad uses of food aid for the generation of local currency support. First, there is programme food aid as foreign exchange and budgetary support to the beneficiary government. This aid is usually on a relatively large

scale and provided as a single transfer of assistance or as part of a multi-annual programme of support.

Practically there have been three sub-categories of project monetisation, which it is useful to distinguish. From the early 1970s to the 1990s there were dairy development projects involving the sale of dairy commodities largely provided by the EU. Commodities were provided directly or as a WFP project. This was sometimes in close association with FAO technical co-operation and World Bank or bilateral funding of non-food assistance. These were usually in the public sector. The main form of monetisation has been by US-based NGOs under PL480 Title II. Finally there has been very small-scale partial monetisation, usually to meet non-food costs such as ITSH costs by WFP and NGOs. These minor financial activities are not considered, except to note that, again, they indicate the constraint that lack of funding for non-food costs places on the effectiveness of food aid. This review considers evidence on development effectiveness and issues of further evaluation of project aid, dairy development and NGO monetisation separately.

Programme food aid

An assessment of the effectiveness of programme food aid has to rely on the evaluations and other studies undertaken on behalf of the major providers of this form of aid, including Australia (AusAid, 1997), Canada (CIDA, 1998), European Union (Clay *et al.*, 1996) and the United States (McClelland, 1997). These evaluations and policy reviews were broadly discouraging in their conclusions and are considered to have contributed to the decline in this form of food aid. Since then, there have not been any comparable wide-ranging assessments of programme food aid. This assessment therefore draws largely on earlier evaluations, complemented by some tentative inferences about likely effects from the way programme aid is currently provided to a limited number of recipients. These are apparently being assisted for a complex range of development, as well as geo-political and trade, objectives.

Economy-wide developmental impacts

Large-scale programme food aid provided as general support for economic development is widely accepted to have made, on balance, favourable impacts on growth and, indirectly, on poverty levels. This analysis covers the period from the 1940s under the Marshall Plan to the early 1970s. The optimal use of this aid was a way of reducing commercial imports (formally disqualified under rules on surplus disposal) and additional food imports by countries with a severely constrained foreign exchange situation. These additional resources contributed to overall growth (Isenman and Singer, 1977) and savings in foreign exchange could be reallocated to finance other

needed imports, cover BoP deficits or repay external debts (Colding and Pinstrup Andersen, 1998). Depending on scale relative to public expenditure counterpart funds provided, an important additional source of budgetary support to large-scale recipients such as Bangladesh, India and South Korea, and to some small economies such as Cape Verde (Bruton and Hill, 1991; Cathie, 1989; Ferreira Duarte and Metz, 1996).

The accumulation of evidence from the late 1970s to the mid 1990s is much more qualified in its conclusions, indicating *insignificant* or *inconclusive* positive or other negative effects.

- The modest scale of resources and supply-influenced variability in levels of food aid precluded significant impact except in a few major recipient economies.
- Import substitution or additional food: Problems of implementation frequently reduced the actual levels of foreign exchange savings and resulted in higher than intended imports.
- Agricultural impacts: Short-term negative interactions were common between food imports and local production. The negative impacts were most common in crisis situations because of excessive commitments that were not modified despite changing circumstances (see discussion of emergency aid in Chapter 1).
- Agricultural policy: programme food aid was typically being sold on local markets under price regimes that involved consumer subsidies, with a high proportion of privileged consumers and to the disadvantage of producers of these commodities.

Counterpart funds

In many cases the actual effects of counterpart fund arrangements on recipient government expenditure were unclear because fungibility complicated the assessment. Broad generalisations have proved difficult with a succession of wider assessments stressing the critical importance of highly country-specific considerations. In some cases, food aid represented a substantial resource for development (Bruton and Hill, 1991). However, the widely recognised – but difficult to substantiate – concern that this resulted in budgetary dependency was probably exaggerated because programme aid was, except in a few cases, only a small proportion of public revenue. There was also widespread scepticism that, due to fungibility, counterpart funds represented little more than window dressing. Issues of RTE are considered more fully in Chapter 2. In addition, inefficiency in the creation of counterpart funds is a constant theme of evaluations and audit reports. For example, the EU evaluation estimated an average 77% efficiency ratio in the generation of counterpart funds in relation to donor costs for countries where accounts had

been properly estimated and reports were available (Clay *et al.*, 1996). The high level of transaction cost associated with counterpart fund-generation typically included:

- Inefficiency in supply of commodities so that donor costs exceeded import parity prices when commodities were sold.
- Delays in the sale of commodities.
- High internal distribution costs.

Poverty alleviation

This form of intervention is generally ineffective in enhancing the poorest most food-insecure households. Evaluations note that public ration and subsidy systems commonly discriminate against the poor, with benefits accessible to urban, public and formal sector employees, the military, civil service and similar groups. Subsidised sale reaches only those consumers with purchasing power, obviously not the poorest (McClelland, 1997). On occasion the use of self-targeting foods disproportionately consumed by the poor, for example, soft wheat in Bangladesh and yellow maize in Southern Africa, has had progressive effects as an income transfer to poorer consumers. Self-targeting represents an imprecise and inefficient way of achieving an income transfer to poor households.

The impact of counterpart funds on poverty and food insecurity depends on the allocation of these funds. Generally, the proceeds from the sales of programme aid are used as public budget revenue, so that the development benefits depend on the public expenditure priorities of the recipient government. Consequently, programme aid will have only an indirect effect on the food security of the poor (Colding and Pinstrup Andersen, 1998). There is a more general debate on the relationship between programme aid and poverty reduction objectives. However, evaluations indicate limited success in specific cases of food aid-generated counterpart funds in prioritising food-insecure regions or groups. Similarly policy reform initiatives linked to programme aid can theoretically benefit the poor, if they effect change on an issue critical to food security and poverty. Again, evaluations indicate limited success in dialogue with recipient governments on such policy issues. Overall, programme aid has proved a blunt instrument for levering policy change and, indeed, can sometimes act as a disincentive to sustainable development, by allowing governments to postpone implementation of suitable policies. There is no evidence to suggest that food is more pro-poor in its impact than other forms of programme aid. Such conclusions led most donors to shift their allocations increasingly to alternative uses, which can in theory focus more effectively on particular beneficiary groups (Pillai, 2000).

The pattern of allocations of programme food aid in recent years

The reduced scale of programme aid and patterns of allocations suggest a shift in priorities. Earlier patterns of sustained, large-scale programme aid to recipients such as Bangladesh and Egypt are changing. Programme aid is now being provided as a form of temporary assistance to a small number of countries coping with economic shocks or political crisis. For example, there has been relatively large-scale programme food aid to Russia in 1999, to Pakistan and Uzbekistan in 2001-02 and Ukraine in 2003, suggesting a pattern of temporary, crisis-related assistance. It is a marginal category of use highly sensitive to donor supply situations. Therefore the sharp increases in levels in 1998-99 and decline in 2002-03 were not linked to changes in overall recipient requirements, but to availabilities and the priority accorded by donors to competing short-term demands. The liberalisation of internal food markets is also limiting the range of country situations in which programme aid can be effectively channelled through public institutions in a crisis situation. For example, donors made much greater use of programme aid to support food crisis-affected Southern African economies in 1992-93 than in 2002-03: *c.f.* the pattern of food aid shipments reported in SADC (1993) and WFP (2003a).

The EC has provided programme food aid in the form of a FOREX facility to some of the case studies, including Ethiopia and Mozambique. The EU Court of Auditors (2003) has raised questions of the integration of this aid with financial aid also provided under food aid budget lines. There are questions of fungibility of BoP support and uses of funds generated by local sales.

The continuing developmental rationale for programme food aid would appear to be in doubt.

Dairy development

The use of dairy products as food aid to promote dairy development has been a continuing and controversial form of monetisation. In the mid 1990s dairy product aid shrank to low levels (Figure 1.6), reflecting continuing limited demand in supplementary feeding and limited supplies of tied aid from some smaller donors such as Denmark. The availability of skimmed milk powder under USDA S416(b) programme for surplus disposal has recently revived interest in food aid-supported dairy development in Sub-Saharan Africa (Abdulai *et al*., 2004).

Dairy development has long been understood by agencies promoting agricultural development, especially FAO and the World Bank, as combining two necessary, complementary, aspects: the expansion of commercially-oriented dairy production to provide income-earning opportunities for smaller producers, often through co-operative marketing together with

subsidised provision of technical improvements, credit and know-how. Responding to a growing urban, middle-income demand for dairy products requires the expansion of a modern processing sector and marketing system. So, initially, low and seasonally fluctuating domestic supply levels would be complemented by imported dairy products (dried skimmed milk powder and butter oil) for re-combination.

The emergence of structural surpluses of dairy products within the EU from the late 1960s resulted in the establishment of dairy food aid as an additional mode of surplus disposal, complementing internal measures and subsidised exports. The WFP, in collaboration with FAO as the long-term promoter of dairy development, and particularly the Indian Government, grasped this opportunity in what became known as Operation Flood. This became the model in which food aid committed on a multi-annual basis was sold to a publicly-owned dairy industry co-operative structure. The local currency funds were used to promote dairy producers, initially in Gujarat and then contribute to financing national expansion of dairy development in several states. Operation Flood, launched in 1970, continued in three phases into the 1990s and is widely cited as a successful model of dairy development supported by direct dairy aid.

Operation Flood aimed to contribute to reach food supply security in India by spreading the model provided by the Anand co-operative of milk producers. Its overall objective was to lay the foundation of a modern dairy industry in India. In the carrying out of this project, two bodies were co-responsible: the Indian Dairy Corporation (IDC) and the National Dairy Development Board (NDDB). It experienced three phases. The first (1970-80) was financed by the sale of skimmed milk powder (126 000 tonnes) and butter oil (42 000 tonnes) gifted by the European Union (then EEC) through the World Food Programme. In the second phase (1981-85), EEC gifts (direct food aid) and a World Bank loan helped to try to promote self-reliance. Phase III (1985-96) was funded by a WB loan of USD 360 million and food aid worth 2 227 million Indian rupees by the EEC and 2 063 million Indian rupees generated from the internal resources of the NDDB and was to consolidate India´s dairy co-operative movement. The literature on Operation Flood, including independent research (*e.g.* Doornbos *et al.*, 1990, 1991), and evaluations highlight several key issues. A necessary condition for successful food aid-supported dairy development in India was the availability in the pre-WTO era of an assured supply of commodities on a multi-annual basis from EU structural surpluses. Dairy aid was a predictable, intra-marginal aspect of both EU food aid committed in physical quantities and also dairy market management.

The food aid pricing issue has effectiveness as well as efficiency implications. Until more recent privatisations of dairy industries, the monetisation in most dairy development projects was an accounting

transaction between public agencies. There is tension between, on one side, milk processors seeking low assured input prices and consumer interest in low retail prices, and on the other side, farmer developmental agencies and donors wanting to maximise local currencies for developmental purposes. The Finance Ministry was in the ambiguous position of wanting to both maximise revenue, and also minimise operating losses of the parastatal milk industry. For example, butter oil is less widely traded and may not otherwise be imported; import parity prices are more difficult to establish and the aid donor, usually the EU, costs may include internal producer subsidies. Local producer milk prices was another linked area of tension between processors, farmers and developmental stakeholders. The Operation Flood evaluations indicate a continuing problem of ensuring that low accounting prices and assured high levels of aid do not undermine the processors in providing prices to producers, especially small-scale farmers, which enable them to expand profitably (Dangroup, 1992). These pricing issues are a reflection of two long-term disincentive concerns: the risk of undermining domestic production directly through pricing, and of reducing incentives to invest in domestic agricultural development.

Equity aspect

Operation Flood generated much controversy concerning the impacts of integrating localised rural production and commercial regional marketing networks. Initially dairy development diverted supply from local consumption to processor networks, resulting in examples of declining consumption amongst small-scale poor producer households, with associated nutritional concerns. Income generation from production growth can compensate for the loss of own consumption. There is a continuing concern that the pattern of growth may favour larger-scale producers. There are also potential pressures from the middle-income urban consumer to hold down dairy product prices. In contrast to Operation Flood, other less satisfactory dairy aid projects, for example in Bangladesh, Sri Lanka and Tanzania, were phased out by the EC during the 1980s following critical evaluations. In the mid-1990s the combination of successful internal market measures for managing dairy surpluses and the transfer of funding budget lines from dairy aid to more flexible food aid nearly terminated this form of EU food aid (Figure 1.6).

Two recent developments have rekindled interest in dairy development, necessitating a reassessment of lessons from earlier experience. First, economic liberalisation and rapid urban economic growth favour dairy development. Privatisation of the dairy industry may overcome inefficiencies associated with food-aided dairy development. Trade liberalisation combined with competitive tendering for commercially importing commodities may reduce transaction costs and subsidisation of the distribution sector that

occurred through administered prices. Second, more surplus commodities have become available under the USDA S416(b) food aid programme.

Food aid-supported dairy development is possible, but difficult. Linking development financing to sale of imported inputs to the processing sector introduces additional risks, inefficiencies through transaction costs and management problems that would be avoided through conventional development funding.

Monetised project aid

Monetisation, that is, the sale of donated commodities to generate local funds to be used in a project context for specified needs, originated as a way of meeting non-food costs of a food-based direct distribution project. Such costs included Inland Transport, Shipping and Handling (ITSH), in-country project management, on-side monitoring of progress indicators, auditing staff, beneficiary training, evaluations and the other administrative requirements of the donor and recipient governments. Monetisation, where the primary objective is to generate local currency funds for development, transition or emergency food security activities, is almost entirely a US NGO phenomenon. Excepting dairy development, WFP has not participated except where commodities are specifically sold to meet narrowly defined non-food costs of food-based projects. The EC and other donors have preferred to provide financial resources including switching funds within food aid budget lines as a way of funding food security intervention.

Following intensive lobbying from NGOs, the US Congress modified legislation to allow a minimum monetisation of 5% of total value non-emergency commodities in FY 1987, raising the *minimum requirement* to 10% in 1988 and again to 15% in 1996. As a result, monetisation was transformed from addressing non-food cost constraints to becoming a major vehicle for supporting a wide range of food security-related project activities. There was an associated increase in US NGOs participating in PL480 Title II programmes from five in 19 countries in 1988 (expending USD 21 million) to 18 in 1999 in 42 countries (expending USD 227 million). This considerable expansion is ascribed to the availability of increasing levels of local currency sources made available from monetisation of food aid (Tschirley and Howard, 2003). In parallel, the proportion of Title II non-emergency or development resources monetised expanded from 10% in 1990 to over 60% during 2001/02. Monetisation has become a significant feature of international food aid. In 2002 approximately half of project food aid channelled through NGOs and 13% of delivered food aid was sold. In 2003 there was a reduction in the level of sales from 1.2 to 0.8 million tonnes delivered, a decline of one-third, to only 7.5% of global food aid. This reduction appears to have been because of the priority accorded to emergency aid and because of a rebalancing of

development priorities in favour of food-based interventions. In 2002, INTERFAIS indicates that NGOs delivered approximately 2.9 million tonnes of commodities including 2.2 million tonnes of project aid, of which 1.2 million tonnes were for sale. In 2003, NGOs delivered 2.97 million tonnes of commodities, of which project aid amounted to 1.6 million tonnes and approximately 800 000 tonnes were sold (WFP, 2004b).

Developmental effectiveness

The impacts of monetisation activities are difficult to establish with any confidence. First, there are limitations in the monitoring and evaluation systems put in place for projects. As already noted for food-based interventions, monitoring typically focuses on short-term process indicators rather than long-term outcomes. There are problems of base-lines and "with and without" project comparative analysis. Second, the most recent attempt at a comprehensive review considers all Title II projects on a sectoral basis and does not distinguish clearly between the roles of food-based intervention, the complementary use of local currencies generated by monetisation or non-food projects, which are entirely funded by monetisation (Bonnard *et al.*, 2002). Success is also reported on a head count of projects without regard to scale, including new support to long-standing programmes such as MCH in India, Cape Verde and Peru, with pilot projects in Africa. Consequently, there are "a number of positive accomplishments„ (US GAO, 2002) illustrated by Title II in Cape Verde, based on a review of mid-term and final evaluation documentation of whole monetisation (Box 2). There are similar qualitative assessments for countries providing other such cases. However, assessments indicate also that there are a number of problems.

Food security

Policy objectives have been so broadly defined that almost any sort of agricultural or rural development activity can be described as achieving progress along one or more of the multiple paths towards increasing food security.

Local market development

Monetisation necessarily involves intervention in local food markets with the potential to affect agricultural producer incentives, markets and processors, as well as consumer incomes. The Bellmon analysis requires that there is adequate storage in the country and "the distribution of commodities in the recipient country will not result in *substantial* disincentive to, or interference with, domestic production or the marketing in that country" (USAID, 1985). The recent efforts to strengthen the Bellmon process in West

Africa and the suggestions for strengthening the procedure for Sub-Saharan Africa (Tschirley and Howard, 2003) imply some limitations in the way this has been undertaken. The analysis focuses on overall supply. Monetisations which are small in relation to total supply and only have marginal or localised effects are excluded from consideration. Importantly, in an African context the analysis does not consider the possible implications for regional trade. Tschirley and Howard conclude that "there is insufficient evidence at this time to determine with confidence: *a)* what the net effects of most monetisation are on markets in developing countries, and *b)* whether the cost of achieving positive effects ... through monetisation justify the use of this mechanism as opposed to other means, such as micro-credit and training, or import facilities".

Efficiency issues are raised: Monetisation is necessarily "a second-best" option to the provision of financial assistance because of transaction costs. Evaluations of individual projects, as in Ethiopia, commonly throw up problems in the monetisation process, such as the time and availability of local currencies needed to maintain project momentum. Efficiency in recovering of commodity handling and transport costs can require co-operating sponsor agencies "... to become commodity future traders" with further costs. What was apparently the most recent full evaluation indicated serious concerns about cost recovery and consistent reporting on these issues (Mendez England, 1996). The 1994 figures show that monetisation sales recovered CIF costs in 24% of the countries, recovered only FAS costs in 52% and did not recover even FAS costs in the remaining 24%.

There are concerns about the effects of tying on the efficiency of the monetisation process. The supply of value-added commodities appears likely to reduce cost effectiveness (Bonnard *et al*., 2002; Tschirley and Howard, 2003). The concerns of beneficiary governments about GM commodities resulted in disruptions in supply and counterpart generation in two of the case study recipient countries (India and Bangladesh). It is also an obstacle to post-crisis recovery in southern Africa. Recent reviews indicate a number of issues for further consideration:

- The quality of the marketing analyses supporting monetisation. This should include effects on regional as well as domestic markets, and the supply of highly processed value-added products compared with unprocessed commodities.
- The organisation and transparency of the monetisation process: there is a lack of current quantitative evidence on cost efficiency in generating counterpart funds or cost recovery.
- The issue of fungibility: in some cases, monetised activities may be, to a considerable extent, fungible.[4]

- Impacts on market structure.
- Cost efficiency of monetisation: how do the transaction costs of monetisation compare with alternatives such as import facilities?
- Impact assessment of monetisation on local markets over a sustained period.

Large-scale monetisation raises many of the same issues as arise with programme food aid as a modality for providing local currency budgetary support. NGOs in a wide range of country situations have opted for monetisation in preference to food-based direct distribution. This indicates their revealed preference for supporting a wide range of food security and anti-poverty interventions with local currencies rather than using food aid for direct distribution. *The rationale for monetisation has been that the resources are additional and flexible, at least as regarding uses.* Tschirley and Howard conclude:

> "In the short run for specific programmes, *e.g.* PL480 Title II, and missions, food aid is almost certainly additional to available cash resources. In these cases, despite the higher management costs of food aid, the focus should be more on how best to use food aid and less on whether to use it. Taking a longer-term perspective, where food-based interventions are undertaken, the need for complementary cash resources is manifest. There is also a need for integration with the complementary non-food activities, for example, in education and health. Stakeholders will be able to make a considered judgement on the merits of even limited monetisation on the basis of much fuller and more transparent information about the process, the assuredness of the resources, its efficiency and other potential impacts on recipient country markets and agriculture and linked sectors. Instead of narratives about good things being done with additional resources, grumbles about negative effects and inefficiencies, full, systematic and independent evaluation is required based on quantitative evidence."

Box B.1. **Final impact evaluation of Cape Verde Title II monetisation programme**

During the five year period 1995-99, US food aid supplied 19% of maize, 10% of wheat, and 7.5% of rice consumed in Cape Verde. This 1997-01 Title II project imported and sold 64 700 MT of US corn, wheat, rice, and beans over a four-year period to generate the local currency escudo equivalent of USD 15 200 000. The selling prices over the period averaged 122% of the "Food-for-Peace benchmark" FAS prices. These funds were used over the DAP lifetime to accomplish the following progress towards three objectives of the project:

- ***Objective 1:*** Support soil and water conservation activities as a means of reducing environmental degradation and improving infrastructure to increase agricultural productivity.
- ***Objective 2:*** Introduce technologies for increased water conservation and higher yields.
- ***Objective 3:*** Undertake a micro-enterprise training and lending programme and support an ongoing small business lending programme intended to improve the processing and marketing of agricultural products.

Accomplishments attributed to the project by the evaluation team:

- Membership in project associations increased to nearly 2 500 full member households and 1 300 prospective member households.
- An increase in access to food through significant income increases by participating households. Member incomes increased an average of 43%; non-member incomes dropped.
- Female-headed association households increased their earnings from association contracts by 90%.
- Physical assets and other indicator targets were surpassed in the following categories: check dams, contour rock walls and terraces, contour vegetative barriers, trees planted and surviving, overall employment, specific female employment, recovery of top soil, water catchments constructed, rural associations sustained, number of drip irrigation systems installed, vegetable production, numbers of people trained in micro-enterprise management.

Impacts of project activity:

- Food production in Cape Verde is severely limited by environmental and climatological factors. The Title II project provides necessary food to fill a structural food gap. A cash rather than food aid project would not have been able to accomplish this end unless it was devoted to importing foods to be used in a way identical to that of the Title II monetisation activity.

Box B.1. **Final impact evaluation of Cape Verde Title II monetisation programme** *(cont.)*

- The local currency generated from the sale of that food has enabled several thousand poor rural households to increase their own production of foods and other agricultural crops to either add to the food supply (pan-seasonal vegetable production) or to the household income, or both.
- Permanent irrigation systems and canals have been built and are being maintained.
- Apparently, viable micro-credit schemes have been established and were, as of the drafting of the evaluation, still functioning.
- Marketing margins of vegetable sales have been reduced by operating through project co-operative associations with the effect of raising net profits to member households.
- All project targets for indicators relating to improved access to food were surpassed.

Source: Summarised from Pierce and Langworthy, 2001.

Notes

1. For example, studies for Brazil (Thomas, 1997), for Guatemala (Engle, 1993) and for Ethiopia (Quisumbing, 2003).
2. "Indeed, in emergency situations, WFP may distribute food rations to whole families through the school system – often one of the only nationwide structures in a poor country." (WFP, 2002b)
3. See, for example, Alderman, Hoddinott, and Kinsey (2004), who consider long-term consequences of early childhood malnutrition associated with economic shock and drought in Zimbabwe.
4. Subbarao (2003) estimates that 96% of project food aid, including both PVO monetisation and WFP direct distribution, was used in India to supplement specific projects already designed and implemented by government.

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DOES TYING MATTER?

The Development Effectiveness of Food Aid: Does Tying Matter? provides a detailed look into two food aid issues. First, the study assesses the effectiveness of the various ways in which food aid can promote food security and poverty alleviation. This remains an unresolved issue: independent reviews of food-aided development activities range from the guardedly positive to the cautiously negative. Second, the study demonstrates that food aid in-kind carries substantial efficiency costs, conservatively estimated as at least 30% on average. In contrast, most local purchases or regionally sourced imports are relatively efficient ways of providing food aid. Thus, there is scope for considerable efficiency gains by switching to less restricted sourcing of food.

The study therefore argues that, in most circumstances, financial aid (cash) is the preferable way to fund direct distribution of food or to provide budgetary support for general development or project assistance. A context-specific rationale is always required for providing imported commodity aid rather than financial aid.

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