MSU International Development Working Papers

Title II Food Aid and Agricultural Development in Sub-Saharan Africa: Towards a Principled Argument for When, and When Not, to Monetize

by

David Tschirley and Julie Howard

MSU International Development Working Paper No. 81 2003



Department of Agricultural Economics
Department of Economics
MICHIGAN STATE UNIVERSITY
East Lansing, Michigan 48824

MSU Agricultural Economics Web Site: http://www.aec.msu.edu/agecon/MSU Food Security II Web Site: http://www.aec.msu.edu/agecon/fs2/index.htm

MSU is an affirmative-action/equal-opportunity institution.

MSU INTERNATIONAL DEVELOPMENT PAPERS

Carl Liedholm and Michael T. Weber

Editors

The MSU International Development Paper series is designed to further the comparative analysis of international development activities in Africa, Latin America, Asia, and the Near East. The papers report research findings on historical, as well as contemporary, international development problems. The series includes papers on a wide range of topics, such as alternative rural development strategies; nonfarm employment and small scale industry; housing and construction; farming and marketing systems; food and nutrition policy analysis; economics of rice production in West Africa; technological change, employment, and income distribution; computer techniques for farm and marketing surveys; farming systems and food security research.

The papers are aimed at teachers, researchers, policy makers, donor agencies, and international development practitioners. Selected papers will be translated into French, Spanish, or other languages.

Individuals and institutions in Third World countries may receive single copies of papers published since 1993 free of charge. Requests for copies and for information on available papers may be sent to:

MSU Bulletin Office 10-B Agriculture Hall Michigan State University East Lansing, Michigan 48824-1039 U.S.A.

Information concerning how to purchase MSU International Development Papers is included in the back of this publication and requests should be sent to:

MSU Bulletin Office 10-B Agriculture Hall Michigan State University East Lansing, Michigan 48824-1039 U.S.A.

Title II Food Aid and Agricultural Development in Sub-Saharan Africa: Towards a Principled Argument for When, and When Not, to Monetize

by

David Tschirley and Julie Howard

April 2003

This paper is published by the Department of Agricultural Economics and the Department of Economics, Michigan State University (MSU). Funding for this research was provided by the Food Security II Cooperative Agreement (PCE-A-00-97-00044-00) between Michigan State University and the United States Agency for International Development, through the Office of Agriculture and Food Security in the Bureau for Economic Growth, Agriculture, and Trade (EGAT). Supplemental funding for this research came from USAID/Office of Food for Peace.

Tschirley is Professor, International Development, and Howard is Assistant Professor, International Development, in the Department of Agricultural Economics, Michigan State University.

ISSN 0731-3438
© All rights reserved by Michigan State University, 2003.
Michigan State University agrees to and does hereby grant to the United States Government a royalty-free, non-exclusive and irrevocable license throughout the world to use, duplicate, disclose, or dispose of this publication in any manner and for any purposes and to permit others to do so.
Published by the Department of Agricultural Economics and the Department of Economics, Michigan State University, East Lansing, Michigan 48824-1039, U.S.A.

ACKNOWLEDGMENTS

The collaboration of USAID Missions in Uganda, Mozambique, and Rwanda is gratefully acknowledged. Thanks to David Neven for excellent research assistance in Rwanda and for coauthoring the Rwanda Case Study.

EXECUTIVE SUMMARY

The rapid increase in monetization of Title II food aid commodities since the practice was introduced in 1986 has lead to vigorous debate over the proper role of this tool in United States Agency for International Development's (USAID) portfolio. This paper attempts to develop a set of principles and approaches to food aid, and specifically to monetization, that balance pragmatic short-run considerations against the need to pursue better long-term solutions.

The paper summarizes trends in U.S. foreign assistance, and reviews historical and recent critiques of food aid. It examines the *resource additionality* of U.S. food aid and its implications for food aid practice, then lays out the case for monetization, distinguishing between when monetization is a first best option, when it is a second best option, and when it should not be used. The paper closes by examining two key monetization issues: the role of monetization under emergencies, and the implications of increased use of value-added commodities in Title II.

Food Aid Trends: Official Development Assistance (ODA) from the U.S. has trended sharply downward over the past 40 years, and agriculture's share has fallen to only 4.1% in 1998. In real terms, U.S. funding for agricultural development in developing countries has never been lower. Globally, food aid has also declined sharply. But with the large domestic cereals surpluses in 1999 and 2000, U.S. food aid tonnage returned to levels not seen since the mid- to early 1970s. The pending U.S. farm bill takes several steps back towards the types of income supports that have historically produced U.S. domestic surpluses, making it likely that food aid will remain an important component in U.S. foreign economic assistance for the foreseeable future.

Critiques of Food Aid: Historical critiques of food aid focused primarily on the implications of two key characteristics distinguishing it from financial aid: (1) the complex web of interest group politics that affect the availability and use of food aid, and (2) the resource being in commodity rather than financial form. The most common criticisms have been: (a) the potential *disincentive effect* of food aid on domestic production, (b) the possibility that food aid would change consumer preferences towards imported and away from domestically produced staples, (c) the instability and unpredictability of food aid allocations, and (d) the high transactions and management costs of food aid. Recognition of this final problem has driven a sustained and quite successful effort to make food aid more flexible so that it can more effectively substitute for limited financial resources. Monetization and related innovations first emerged in this context.

The historical debates about food aid assumed that it was *additional* to ODA cash resources. More recent critiques have questioned this assumption, suggesting that food aid is simply another *choice* of development resource, with its own constituency that would argue in its favor and, implicitly, against financial aid for the same activities. In this environment, the high transactions costs and lower flexibility of food aid compared to financial aid put it at a distinct disadvantage.

Resource Additionality of Food Aid: This paper argues that, over the short-run and for specific programs, food aid is often additional to existing cash resources. Over the longer-run and at the

aggregate level, food aid may be only partially additional to cash ODA. This line of reasoning suggests that USAID should continue the process it has already begun of defining more carefully (and narrowly) when and where food aid is the most effective development resource, lobbying for cash instead of food assistance when the former is most appropriate, but remaining pragmatic to make best use of food aid when it is available as an additional resource. Such a pragmatic stance is needed in the face of uncertain aid budgets, fitful progress in international trade negotiations, and the need to be mindful of short-run imperatives as one searches for better long-run solutions. Among other things, this implies that innovations such as monetization should continue to be used when appropriate, and that the circumstances under which it is judged appropriate will be more frequent than if resource additionality did not obtain (i.e., if the food aid were not additional to available cash resources).

The Case for Monetization: The paper evaluates three situations regarding the desirability of using monetized food aid as a development resource: when it is the "first best" option (preferred over all other options), when it can be justified as a "second best" option (the best among the limited set of *available* options), and when it should not be used. The primary situation in which monetized food aid would be the preferred development resource is when: (a) a country has a chronic food and balance of payments deficit, *and* (b) the commodity available is appropriate to local conditions, *and* (c) the local USAID mission or non-governmental organizations (NGOs) have shown the commitment and skill to use monetization to achieve local market development goals that could not be achieved as efficiently with cash.

There is increasing evidence from the "gray literature" that NGOs are able to achieve positive effects from the monetization process itself (condition c above). Two questions need to be answered to determine whether this evidence justifies using monetization, as opposed to other means, to achieve these objectives. First, does this "soft" evidence stand-up to more rigorous analysis of the positive and any negative effects of monetization on markets? Second, is monetization the most cost-effective means of achieving these objectives? Given the high management costs of food aid, it appears likely that monetization will not often be the first best option.

Based on resource additionality, the paper argues that, in a wide variety of situations, monetization will be the best among *available* options - it will be the "second best" option. If USAID restricts the scope for monetization, NGO portfolios in developing countries will be reduced, and may move towards direct distribution programs, and away from programs that contribute to long-term food security. There may also be a reallocation of food aid towards countries judged more able to benefit from direct distribution. These reallocations within and across countries will slow or possibly reverse a dramatic change in NGO behavior over the past decade, as they have increasingly turned to promoting rural development and income growth, as opposed to their original focus on relief and direct nutrition interventions.

The cost of such a change will include: (a) the foregone benefit from the developmental NGO interventions that attempt to increase agricultural productivity and household incomes, (b) any foregone positive effects on local market development from the monetizations themselves, and (c) any negative effects from undercutting markets through direct distribution. Benefits will

include: (a) improved nutrition of households receiving the free food, (b) long-run productivity effects of the improved nutrition, and (c) a resource transfer effect for households receiving the aid when targeting is ineffective and the food aid substitutes for purchases or allows greater food sales.

The balance of benefits and costs will depend on the specifics of the direct feeding and development proposals that compete for the Title II food aid resource, and on the economic environment in which they operate. Given the documented difficulties of targeting food aid in direct distribution programs, we anticipate that the costs of restricting the scope for monetization will outweigh benefits unless compelling evidence of effective targeting can be demonstrated. In light of the resource additionality of Title II food aid, we see no *a priori* reason why direct distribution should be favored over monetization in Food for Peace (FFP) Office's current portfolio.

The most obvious case where monetization should not be used is when cash assistance is available and would be the more efficient and effective resource. A more difficult and frequent decision looms when an activity will not be implemented without the monetization. USAID's (1995) Food Aid and Food Security Policy Paper and its "generic performance indicators" focus on the type and expected impact of program interventions, deciding when and where to allocate food aid. The paper gives very little attention to the monetization process itself, and none of the indicators deal with this issue. We suggest redressing this imbalance by introducing into development activity proposal (DAP) reviews an assessment of the quality of the cooperating sponsor (CS) marketing analysis, and of their demonstrated commitment to achieving market development effects through the proposed monetizations.

Monetization Under Emergencies: Mozambique's experience in the early 1990s suggests that, by stabilizing food availability and prices, monetization during emergencies can protect the purchasing power of poor consumers and reduce the need for direct distribution of food. Such monetization can also sustain a private trading sector that can: (a) increase food aid's reach beyond what could be accomplished by donor or government distribution, and (b) link surplus and deficit areas more quickly through markets once the emergency is over. For these effects to be realized, the sales process must be designed so that the first- and second-buyer levels are competitive. We suggest that competitive informal marketing sectors are highly adaptable and likely to exist – and be able to respond to new opportunities – in many emergency situations.

Lack of coordination between commercial and emergency food aid programs can create serious problems of oversupply and depressed prices after the end of the emergency. More effort needs to be put into coordinating direct distribution and monetization programs in these situations.

Implications of Increased Use of Value-Added Commodities: The most generalizable effect of increased use of value-added products in Title II will be an increase in the share of commodities that is direct distributed. This effect will be stronger when corn-soy blend, wheat-soy blend, and bulgur are used. The unfamiliarity of these products to consumers means that cost recovery in any monetization would likely be very low. This, combined with the highly imperfect targeting of most direct feeding, also means that these products will often be a very

inefficient resource transfer: recipients will sell some portion on the market, but will receive prices well below import parity. This inefficiency will be greater than when monetizing at low prices because the CSs will have already incurred the costs of the direct feeding operation.

Beyond this general view, the impacts of increased *monetization* of value-added commodities depend on the specific circumstances under which it occurs. Use of value-added commodities in monetization will reduce or eliminate opportunities for value-added processing of the food aid commodities themselves, but Mozambique and Uganda illustrate the fact that this will not necessarily harm the growth of such processing with domestically produced commodities.

Conclusions and Recommendations: Specific recommendations from the study are:

- USAID should argue for U.S. farm policy that more fully decouples support payments from domestic prices, and in favor of cash assistance gradually replacing commodity assistance for most Title II development activities.
- FFP should place no arbitrary limits on the amount of monetization or targets for the amount of direct distribution in Title II.
- FFP should place greater emphasis in its DAP reviews on the monetization process itself, including evidence of specific structural/competitive problems in the market that the CS can address through monetization.
- The current *generic performance indicators* should be modified to include indicators of the effectiveness of the monetization process itself.
- Bellmon analyses should give greater attention to regional dimensions, including patterns of comparative advantage, production, and trade in the region.
- FFP should continue its emphasis on achieving sales prices in the upper range of the free along side cost, insurance, and freight (FAS-CIF) interval.
- To facilitate more objective and rigorous analysis of monetization in future, CSs should be required to collect and maintain accessible data bases of: (a) price information for the commodity being monetized and, where relevant, one to two close substitutes in consumption, and (b) information on each individual monetization, including date, specific location, sales price, number of buyers, and total volume.
- FFP should commission a detailed study of monetization experience since 1994 (the date of the last detailed study of food aid monetization). Among other topics, this study should address the cost of managing monetization compared to alternatives such as import facilities, micro-credit schemes, and capacity building for small local traders.

CONTENTS

EXECUTIVE SUMMARYv
LIST OF ACRONYMS xi
1. INTRODUCTION AND OBJECTIVES
2. BACKGROUND
2.1. Trends and Composition in U.S. Development and Food Aid Assistance
3. CRITIQUES OF FOOD AID5
3.1. Historical Critiques53.2. More Recent Critiques6
4. THE RESOURCE ADDITIONALITY OF U.S. FOOD AID
5. THE CASE FOR MONETIZED FOOD AID
5.1. When Is Monetization the "First Best" Option?125.2. When Is Monetization Justified as the "Second Best" Option?145.3. When Should Monetization Not Be Used?16
6. KEY MONETIZATION ISSUES
6.1. Monetization Under Emergencies: Lessons from Mozambique's Title III Experience
7. CONCLUSIONS AND RECOMMENDATIONS
REFERENCES

LIST OF ACRONYMS

CIF Cost, Insurance, and Freight

CS Cooperating Sponsor **CSB** Corn-soy Blend

Development Activity Proposal DAP

European Union EU **FAS** Free Along Side FFP Food for Peace Food for Progress **FFPr**

NAMA North American Miller's Association NGO Non-Governmental Organization

NIS **Newly Industrialized States**

ODA Overseas Development Assistance

OECD Organization for Economic Cooperation and Development United States Agency for International Development **USAID**

Wheat-soy Blend WSB

WTO World Trade Organization World Vision International WVI

1. INTRODUCTION AND OBJECTIVES

Since monetization was introduced by the U.S. Congress in 1986, its use has increased steadily, until it now accounts for nearly two-thirds of the total dollar value of Title II non-emergency funding.¹ This trend is hailed by some for increasing the flexibility of the food aid resource and thus increasing its effectiveness and helping avoid potential negative impacts. Others lament the same trend as a misuse of this unique resource, and argue for increased use of "food as food." The complexity of the debate reflects the complexity of the resource and the diverse interest groups that strive to be heard.

This paper attempts to develop a set of principles and approaches to food aid that balance pragmatic short-run considerations against the need to pursue better long-term solutions. The analysis is driven by a developmental perspective while recognizing the domestic interests that play a key role in any debate. In the next section we place Title II within the broader food aid context by briefly examining the trends and composition of U.S. development and food aid assistance, and critiques of food aid up to the present time. Section 3 examines short-run and long-run dimensions of the *resource additionality* of food aid, and assesses its implications for the use of this resource. We then focus in section 4 on monetization, discussing under what circumstances it should be considered a "first best" development option (the best among all possible options to attain development goals), when it is a "second best" option (the best option among a limited set of available alternatives), and when it should not be used. We close with a discussion of two key monetization issues: the possible role for monetization under emergencies, and the implications of increased use of value-added commodities in Title II programs.

¹ Monetization entails the selling of food aid in the recipient country to generate local currency funds to cover administrative or operational costs.

2. BACKGROUND

Food aid has long been one of the most controversial forms of aid, both in donor and recipient countries. This chapter places the current Title II study in this broader context about food aid. We first place Title II food aid within the U.S. food aid program and review trends in both food aid and general Official Development Assistance provided by the U.S. We then broaden our scope to examine recent influential critiques of food aid.

2.1. Trends and Composition in U.S. Development and Food Aid Assistance

Official Development Assistance provided by the U.S. to developing countries and Newly Industrializing States (NIS) has trended sharply downward over the past 40 years. Since the latest peak in the mid-1980s, the decline has been especially severe. As reported by USAID, total economic aid (loans and grants) fell in real terms by over half, from an average of US\$20.6 billion during 1984-86 to US\$10 billion during 1995-97 (USAID 2000). The Organization for Economic Cooperation and Development (OECD) data show similar patterns, with U.S. ODA falling in real terms from an average of US\$16.6 billion during 1983-85 (the latest peak in the OECD data) to less than half of that – US\$8.2 billion – during 1996-98 (OECD 2000a). Funding has continued to fall since that time. As funding levels have declined, agriculture's share in total bilateral aid flows from OECD countries fell from 13.2% in 1987 to 7.3% in 1998, while the U.S. allocated only 4.1% of its ODA to agriculture in 1998 (Kruger, Michalopoulos, and Ruttan 1989; OECD 2000b). Total USAID funding for agriculture and food security fell in nominal terms from US\$480 million to US\$260 in 1996, before recovering somewhat to US\$337 million in 1998 (Atwood 2000). Still, in real terms, U.S. funding for agricultural development in developing countries has never been lower.

Globally, food aid has also declined sharply over the past 30 years. From around 16% of OECD countries' ODA in the early 1970s, food aid's share fell to 11% in 1985 and to about 4% by the mid-1990s (Clay, Pillai, and Benson 1998a). This trend has not been as clear in the United States, however. The share of food aid in U.S. ODA fell only from 19% in 1985 to 12% in the mid-1990s. The end of this period (mid-1990s) saw the lowest tonnage of cereal food aid from the U.S. since at least 1970. With the large domestic cereals surpluses in 1999 and 2000 and resulting 416b allocations (see section 2.2. for a brief discussion of the various U.S. food aid programs), food aid tonnage has returned to levels not seen since the mid- to early 1970s, and food aid's share in total U.S. economic aid has likely returned to levels rivaling those of 1985. The pending farm bill (see section 4 below for more on this issue) takes several steps back towards the types of commodity-driven income supports that have historically produced U.S. domestic surpluses. Food aid allocations are inherently unstable, driven as most of them are by domestic politics, policy, and production, and policy initiatives can change as availability fluctuates. Yet, it is clear from this review that food aid remains an important component in U.S. economic assistance to developing countries, and will likely remain so for the foreseeable future.

2.2. U.S. Government Food Aid Programs

This food aid is channeled through five major programs, four of which grew out of the U.S. "Marshall Plan" in Europe. These programs reflect the complex nature of U.S. food aid programs, driven as they are by domestic agricultural policy (especially surplus disposal), foreign policy, development goals, and trade promotion. With the partial exception of PL480 Title II, which has a minimum quantitative commitment level, funding for these programs is highly dependent on U.S. domestic surpluses.²

USDA operates three food aid programs, linked to goals of surplus disposal and trade promotion.

Section 416b of the Agricultural Trade Act of 1949, administered by USDA, provides grants of surplus food obtained from the Commodity Credit Corporation to developing and NIS countries, and to inter-governmental relief operations. This program is perhaps the least stable of all the U.S. food aid programs. For example, 416b commodities were a key part of the U.S. response to the severe Southern African drought of 1992, but by 1997 and 1998, U.S. surpluses had been eliminated, and 416b provided no food aid at all. When U.S. commodity surpluses unexpectedly reemerged in 1999 at a time of large federal budget surpluses and increased humanitarian disasters overseas, this program surged from zero to US\$739 million, shipping 5.5 million tons of food aid in FY99. This increase occurred despite farm bill legislation in 1996 (The FAIR Act) that decoupled farm income support from commodity prices, thus eliminating the automatic link between low farm prices and government accumulation of surplus commodities. Starting in 1999 the U.S. government entered the market and purchased commodities for use in food aid programs. From 5.5 million metric tons in FY99, volumes fell to 3.2 million in FY00 and a preliminary figure of 1.7 million in FY01 (USDA 2001).

Title I of Public Law 480, known as Trade and Development Assistance, is also administered by USDA. It provides concessional sales to developing countries on a government-to-government basis. Loans range from 10 to 30 years, with a grace period of 7 years and low interest rates. Funding for Title I surged in 1999 to US\$420 million, nearly 70% of which went to Russia. With U.S. grain surpluses again in 2000, funding levels remained at levels well above those seen previously in the 1990s.

The final USDA program is Food for Progress (FFPr), which was introduced in 1985 to support market-oriented policy reform in emerging democracies. Funding for this program surged in 1999 to nearly US\$300 million, from less than US\$100 million in 1997 and an average of just over US\$100 million for 1995-97. FFPr is limited to a maximum of 500,000 metric tons, a limit which it reached in 1999.

USAID operates two separate food aid programs, both under PL480. *Title II* of PL480, a grant program, is the largest of the USAID programs, with funding in 1999 rising to nearly US\$950 million, from US\$830 million in 1997. Unlike the other U.S. food aid programs, Title II has a

3

² It should be noted, however, that Title II emergency programs depended a great deal on Section 416b (surplus disposal) supplies during 1999 and 2000. With much reduced surpluses by 2002, Title II could be under pressure.

minimum quantitative commitment, and funding levels for the program are, therefore, somewhat less influenced by domestic surplus availability. Title II commodities may be provided as emergency aid, or to NGOs and World Food Program as development aid. The latter provides the largest single source of USAID funding for food security and agricultural productivity programs. Title II development commodities are most typically monetized to cover administrative and direct costs of NGO development interventions.

Title III of PL480, Food for Development, is a government-to-government grant program funded by Title I. The commodities can be monetized³ and the proceeds used for developmental and food security purposes. USAID has frequently provided this funding as part of its support to policy reform in the recipient countries. Funding for Title III has fallen dramatically since 1995, to around US\$5 million in 2000.

-

³ Title III monetizations of yellow maize grain in Mozambique provided a major source of staple food for poor Mozambicans during the late 1980s and early 1990s. See section 6.1. for more detail on this issue.

3. CRITIQUES OF FOOD AID

3.1. Historical Critiques

Food aid has received a great deal of study, praise, and criticism in its nearly 50 years of life. The critics have mostly focused on the implications of two key characteristics of food aid that distinguish it from financial foreign aid: (1) the especially complex web of humanitarian, national interest, and domestic interest group politics that affect the availability and use of food aid, and (2) the resource being in commodity as opposed to financial form. The most common criticisms that have emerged are: (a) the potential *disincentive effect* of food aid on domestic agricultural production, (b) the possibility that food aid would change consumer preferences towards imported as opposed to domestically produced staples (we will call this the *consumption substitution effect*), (c) the instability and unpredictability of food aid allocations, and (d) the high transactions and management costs of food aid as opposed to financial aid. The first three of these concerns are linked primarily to the complex political nature of food aid, while the fourth is primarily a function of its being in commodity, rather than financial form.

The potential disincentive effect of food aid has probably received the most academic attention (Singer, Wood, and Jennings 1987; Maxwell 1991; Ruttan 1993). This concern originates from the use of food aid to pursue foreign trade promotion goals in addition to humanitarian and developmental goals. One legislative embodiment of the trade promotion goal is the U.S. requirement that food aid not displace regular commercial imports, but rather be in addition to them. This additionality requirement is addressed in the Usual Marketing Requirement that U.S. food aid allocations have to satisfy. The economic basis for the concern with potential disincentives is simple: if the food aid is in fact additional to commercial imports, total supply in the country will be increased, and prices for that product and close substitutes in consumption will be reduced below their "normal" levels. All else equal, producers of the crop or its substitutes will have less incentive to produce it. This potential disincentive effect, however, could be counteracted by the income effect on households if the food aid was given away free rather than monetized, or by the positive developmental effects of the activities funded by the food aid if it was used in food-for-work or monetized. Too, in practice food aid has seldom been additional to commercial imports except in cases of severe humanitarian disaster (Clay, Dhiri, and Benson 1996). The result has been that the body of empirical studies has been inconclusive regarding the disincentive effect of food aid; the most reasonable conclusion is that the balance of positive and negative effects depends critically on the details of how the food aid was programmed, delivered, and distributed within the country, on the country's overall economic and agricultural sector policies, and on how any counterpart funds from monetization were used.

The concern that food aid would change the tastes of consumers in recipient countries away from domestically produced staples and towards imported staples such as wheat (Singer, Wood, and Jennings 1987; Clay 1991; Ruttan 1993) originates, like the disincentive effect, from the role that trade promotion goals play in donor country food aid allocations. The hypothesized economic damage from this consumption substitution effect was two-fold: reduced demand for domestically produced staples and thus lower farm income, and an increased import bill in countries with limited foreign exchange. This concern has proven even more difficult to grapple

with empirically than did the concern with disincentive effects. This was due, in part, to the consumption substitution effect showing itself only over the medium- to long-term, during which time consumer preferences could be affected by a multitude of factors in addition to food aid receipts. While sufficient time has now passed, and the data now exist to analyze more rigorously this issue in a cross-country framework, these authors are aware of no recent study that has done so.

The instability and unpredictability of food aid allocations emerge directly from the tool's use to dispose of developed country surpluses. On a global level, the lack of correlation of production across countries, along with institutions such as the Food Aid Convention's minimum commitment, ensure that year-to-year variation in global food aid volumes are not unduly large. The problem is most acute in bilateral food aid relations, as illustrated most recently by the surge in 1999 and 2000 in volumes of aid channeled through U.S. 416b; as the budget and agricultural surpluses that fed this surge have receded, 416b volumes have fallen to zero. The unpredictability of food aid arrivals in a given country is related to the bureaucratic (as opposed to market driven) nature of food aid allocations. It has proven exceptionally difficult in most countries to plan with reasonable certainty the timing of food aid arrivals, and this uncertainty poses real, though unquantified, costs on the recipient countries' food systems.⁴

The final major historical criticism of food aid relates to its high transactions and management costs, and reduced flexibility in use, compared to financial aid. These costs and reduced flexibility are an inescapable result of the aid being in commodity form. Recognition of these problems by aid agencies, recipient governments, and especially NGOs receiving food aid, has driven a sustained and quite successful effort to make food aid more flexible so that it can more effectively substitute for limited financial resources. Monetization first emerged in this context. It has been followed by innovations such as third-country monetization (sales in a non-recipient country with the receipts returning to the recipient country), local procurement (use of financial aid to purchase food in the recipient country that counts toward the donor's food aid commitments), and triangular transactions (purchase of food in a food surplus developing country for use in a food deficit developing country), among others. These innovations, considered great successes by some, have become the focus of intense debate in U.S. food aid policy circles in recent years.

3.2. More Recent Critiques

Until the mid-1990s, the backdrop to nearly all debates about food aid was the assumption that this form of aid was *additional* to the ODA resources available as cash; that, as a result of domestic agricultural policies in developed countries that produced unwanted surpluses, food was available for use in relief and development, and that this availability had little or no effect on, and was additional to, the cash resources made available through foreign aid budgets. In such an environment, the debate centered less on *whether* to use food aid than on *how* best to use it; as long as the resource could be made to do more good than harm, there was an ethical

⁻

⁴ See, for example, Tschirley, Donovan, and Weber 1996.

imperative to make use of it. This approach was supported by the conclusions of many researchers that the effects of food aid depended less on its inherent characteristics than on the details of how the food aid was utilized (Ruttan 1993; Clay 1991; Singer, Wood, and Jennings 1987; Maxwell 1991). The innovations mentioned above such as monetization have increased the options open to food aid managers, and have thus generally improved its effectiveness and efficiency.

The comfortable assumption of *resource additionality*⁵ began to change in the mid-1990s, as global trade negotiations progressed and developed country governments were pressured to liberalize their domestic agriculture and eliminate export subsidies. More recent critiques (Clay, Pillai, and Benson 1998a; Clay, Pillai, and Benson 1998b) observed the falling absolute and relative importance of food aid in foreign aid budgets (see section 2.2.), the ongoing global trade liberalization in the context of the World Trade Organization (WTO), and the related changes in domestic agricultural policies in the U.S. and European Union (EU), and concluded that food aid was increasingly a "fully costed resource competing with other activities in aid programmes" (Clay, Dhiri, and Benson 1996). In other words, food aid began to be seen as simply another *choice* of development resource, one with its own constituency in domestic and international organizations that would argue in its favor and, implicitly, against financial aid for the same activities.⁶

In this environment, issues of the effectiveness and efficiency of food aid *compared to financial aid* could not be ignored. On this account, the undisputed high transactions costs and lower flexibility of food aid compared to financial aid (despite the mentioned innovations) put it at a distinct disadvantage. Under a wide range of circumstances, recipient governments, donor agency field staff, and even NGOs would, if given the choice, prefer to receive cash resources as opposed to food aid. The most frequently cited exceptions are humanitarian disasters, chronic severe food deficits where a food aid commodity was judged appropriate for local circumstances and, in some instances, non-emergency direct feeding operations.

.

⁵ We use the term "resource additionality" to distinguish this use of the term "additionality" from its use in U.S. legislation requiring that food aid imports be additional to normal commercial imports (see section 3.1.).

⁶ These critiques emerged earlier and with more force in Europe, where the reform of food aid had started earlier than in the U.S.

4. THE RESOURCE ADDITIONALITY OF U.S. FOOD AID

In this section we assess short-run and long-run dimensions of the resource additionality of U.S. food aid. Based on this assessment, we suggest a set of approaches to food aid for those interested in maximizing the total positive impact of U.S. foreign development assistance.

U.S. commodity policy, and the domestic interest groups that drive it, is one factor that leads to periodic short-run resource additionality of U.S. food aid. It seems clear that the more than US\$700 million channeled as food through section 416b in 1999, and the declining but still large allocations in FY00 and FY01,7 would not have been available as cash in foreign aid budgets in the absence of domestic agricultural surpluses. Perhaps more fundamentally, this experience has shown that the WTO can have little influence over domestic agricultural policy when an administration is faced with a farm profitability crisis. The FAIR act of 1996 intended to decouple support payments from market prices, but largely failed to do so for two reasons. First, market prices unexpectedly fell below loan rates, triggering government payments equal to the difference. Second, in response to the profitability crisis, Congress voted in 1998 to double the amount of money available for farm programs, from US\$5 billion/year to US\$10 billion/year. Both events effectively recoupled farm payments and market prices, with the widely understood effect of increasing the probability of future surpluses, low prices, and recourse to food aid to deal with them.

As of April 2002, the House and Senate have each approved farm bills and have moved to a conference committee to resolve differences and authorize the final bill. Both bills continue and in some respects strengthen a commodity-based approach to farm income support (Becker and Womack 2002). Provisions include a guaranteed per-bushel pricing system using target prices (this had been eliminated in 1996), continued planting flexibility with no supply controls, and substantially increased total funding levels. Of the proposed total new funding, 66% would go to farm commodity programs in the House version, and 59% in the Senate version. Total commodity support spending would rise from US\$10 billion/year to between US\$11-12 billion. The bills raise the annual Title II minimum from the current 2.025 MMT to 2.25 MMT (House) or 2.5 MMT (Senate), and the Senate authorizes continued funding of the Food for Education program at no more than US\$150 million/year for four years. These provisions suggest that the final 2002 Farm Bill, despite early hopes for a fundamental change in direction, 10 will contribute to continued agricultural surpluses over the next 10 years, and will create pressure to use food aid as one tool to dispose of the surpluses. Thus, for the foreseeable future, it appears likely that

⁷ The Administration will not declare 416b resources for FY02.

⁸ The rest of this paragraph is based on David Schweikhardt, personal communication, 2001.

⁹ FAIR is the Federal Agriculture Improvement and Reform Act passed by Congress in 1996. It attempted to institute fundamental changes in the basis for agricultural income support.

Many seasoned observers were never optimistic that such far-reaching reform would be approved (McCalla 2001; Browne, Allen, and Schweikhardt 1997).

U.S. food aid will continue to be a development resource that is additional to cash resources. This has fundamental implications for the debate over the use of food aid, which will be returned to below.

After Congress introduced Title II monetization in 1986 and substantially broadened its permissible uses in 1988, the monetary value and number of CSs (mostly U.S. NGOs) participating in the program expanded rapidly, from US\$21 million for five CSs in 19 countries in 1987 (the year after the enabling legislation) to US\$227 million for 18 CSs in 42 countries in 1999 (Mendez England and Associates 1995; USAID 2000). As a percentage of the total dollar value of Title II non-emergency funding, the value of monetization increased from about 25% in 1994 to 50% in 1999, to an estimated 64% in 2001. Clearly, USAID field missions and CSs used the new Title II legislation to offset declines in cash funding levels, especially for agriculture; from their perspective, Title II monetization resources were additional to their cash resources.

Over the long-run, however, it seems likely that the success of the farm and processed food manufacturing lobbies in initiating and maintaining the Title II food aid mandate, and the success of CSs increasing the flexibility with which they could use it, relieved some pressure that may otherwise have been brought to bear to pursue higher cash funding levels. ¹¹ If this is the case, then over the longer run, food aid was not fully additional to cash development assistance resources, despite the fact that, year-by-year, the same food aid was clearly additional for individual USAID field missions and the CSs in those countries. These observations suggest that the efficiency and effectiveness of the Title II program could be improved if programming decisions were based on an analysis of the inherent advantages of cash vs. food aid in specific circumstances.

Over the long-run, then, food and cash resources for development assistance are unlikely to be independent of each other; abundant food aid and success in increasing the flexibility of its use can be expected to reduce the availability of cash resources for the same uses. Cash resources, however, are not likely to decrease in direct proportion to food aid availability, which suggests that some resource additionality of food aid will remain. If we accept that the WTO will not soon be successful in controlling U.S. agricultural subsidies and resulting surpluses, ¹² then we can also expect that, periodically and for contiguous blocks of years, food aid will be additional to cash development assistance resources at an aggregate level. This reasoning suggests that the following set of attitudes and approaches to food aid may be warranted for those interested in maximizing the total positive impact of U.S. foreign development assistance; we stress that these points need to be taken as a whole, and that no one of them is valid if taken alone:

¹¹ The issue is a strategic one for CSs: food aid can be financed from the Farm Bill, for which there is a clear and focused domestic constituency. Cash assistance for the same activities would have to come primarily from the Development Assistance budget, which has a much weaker and more diverse constituency. These factors suggest that CSs may be more successful getting resources as food aid than as cash.

¹² The previous discussion of the impending Farm Bill supports this contention.

- Focus on the efficiency and effectiveness of assistance programs and highlight always the general superiority of cash as opposed to food.
 - This implies arguing in favor of U.S. farm policy that more fully decouples support payments from domestic prices, to weaken the link between food aid and domestic policy.
 - It also implies arguing in favor of cash assistance gradually replacing commodity assistance for most Title II development activities.
- Be very specific about the circumstances in which either "food as food" or monetized food is a more effective and efficient resource than cash.
- Realize that, in the short-run for specific programs (e.g., Title II) and missions, food aid is almost certainly additional to available cash resources. In these cases, despite the higher management cost of food aid, the focus should be more on *how* best to use food aid, and less on *whether* to use it.
- Remember that, as long as food aid is made available based on domestic political considerations rather than an analysis of its inherent advantages in a given situation, it will generally be most efficient and effective when missions and CSs have the most flexibility in its use. In fact, such flexibility may be the only way to avoid overall negative effects from food aid in these cases. Monetization, third-country monetization, and other innovations are crucial in this regard.
- In light of the 2002 Farm Bill, realize also that, for blocks of years in which the U.S. has agricultural surpluses, food aid will increase the overall resources available for U.S. development assistance. Once again, the focus in these cases needs to be on how best to use the food aid; if its use is informed by lessons learned over the past 50 years, including allowing monetization when cash is the preferred resource, these resources are likely to increase the overall positive impact of U.S. development assistance.
- In years of especially large surpluses, it will often be necessary to spread their use in food aid programs over several years to avoid negative impacts on development objectives. USDA was able to do this with some success in managing the 1999 section 416b purchases.

Summarizing our review of the political economy of U.S. food aid, we have argued that, over the short-run and for specific programs, food aid is often largely additional to existing cash resources. Over the longer-run and at the aggregate level, however, it is possible that food aid is only partially additional to cash ODA. This line of reasoning suggests that USAID should continue the process it has already begun of defining more carefully (and narrowly) when and where food aid is the most effective development resource, lobbying for cash instead of food assistance when the former is most appropriate, but remaining pragmatic to make best use of food aid when it is available as an additional resource. We believe such a pragmatic stance is

needed in the face of uncertain aid budgets, fitful progress in international trade negotiations due to basic domestic political realities, and the need to be mindful of short-run imperatives as one searches for better long-run solutions. Among other things, this implies that innovations such as monetization should continue to be used when appropriate, and that the circumstances under which it is judged appropriate will be more frequent than if resource additionality did not obtain. (i.e., if the food aid were not additional to available cash resources). We turn now to the question of when monetization is an appropriate development tool.

5. THE CASE FOR MONETIZED FOOD AID

In this section we evaluate three situations with respect to the desirability of using monetized food aid as a development resource: when monetized food aid is the "first best" option (preferred over all other options such as cash assistance and direct distribution of food aid), when it can be justified as a "second best" option (the best among the limited set of *available* options), and when it should not be used.

5.1. When Is Monetization the "First Best" Option?

We see three situations in which monetized food aid could be considered the "first best" development resource option. The first such situation is when: (a) a country has a chronic food and balance of payments deficit, and (b) the commodity available is appropriate to local conditions, and (c) the local USAID mission or NGOs have shown the commitment and skill to use monetization to achieve local market development goals in a cost-effective manner. If all three conditions cannot both be satisfied, cash assistance (such as import credits) would be more effective and efficient, even in a country with a chronic food and balance of payments deficit. We emphasize that condition 'c' refers to the ability, through the process of monetization, to improve the competitiveness and efficiency of local markets in a more cost-effective manner than could be achieved by alternative approaches such as micro-credit, import credits, or other investments in the marketing chain. Avoiding harm to markets is not a sufficient condition, because the high transactions costs of food aid mean that the local currency generated from the monetization could have been more cheaply obtained with cash assistance.

The ability of CSs to achieve market development goals (what some call "ancillary impacts") in a cost-effective manner with monetization will typically be the key factor to evaluate in deciding whether monetization is the first best option in these cases: there is no lack of countries with chronic food and balance of payment deficits, and commodities like maize, vegetable oil, and even wheat are often appropriate to local conditions. The "gray literature" provides some basis for optimism regarding the local market development record of NGOs.¹³ Mendez England and Associates concluded as early as 1994 that ACDI in Uganda, Africare in Guinea Bissau, and, in at least one instance, World Vision International (WVI) in Mozambique had achieved positive market impacts through their monetizations. Typically these impacts came from reducing the minimum size of sale, thereby giving better access to the commodity by small traders and providing a more competitive trading environment. Of course, such procedures increase the cost of monetization and are one reason that CSs have been unsuccessful recovering CIF plus full costs. More recently, the umbrella monetization program in Mozambique has become increasingly sophisticated over time in its understanding of markets, and WVI (the monetizing agent) now employs a former commodities trader to run the operation. One can argue that the monetization of crude vegetable oil in that country helped local processors increase capacity

¹³ By "gray literature" we mean the vast literature from NGOs, consulting firms, donors, and others that has not been published in refereed journals or books.

utilization and reduce costs while local oilseed production capacity grew to more closely match refining capacity. Monetization of refined vegetable oil in Uganda and Rwanda in recent years has been structured to be highly transparent and to facilitate access by relatively small traders, with positive impacts on the competitiveness of those markets (Howard 2001).

Thus, there is increasing evidence from the "gray literature" that NGOs are able to achieve positive effects from the monetization process itself. Two questions need to be answered to determine whether this evidence adds-up to a justification for using monetization, as opposed to other means, to achieve these objectives. First, does this "soft" evidence stand-up to more rigorous analysis of the positive and any negative effects of monetization on markets? Answering this question will require more detailed studies of monetization processes in a range of countries. Second, is monetization the most cost-effective means of achieving these objectives? For example, if cash resources were available, vegetable oil processors in Mozambique could have been assisted through an import credit facility, rather than through the monetization of Title II commodities. How do the management costs of the latter compare to the likely costs of managing such an import facility? Would there have been ancillary benefits of increasing processors' experience in international markets through such an import facility, or, alternatively, could such an approach have had the negative effect of reducing the processors' commitment to developing local sources of supply? Similarly in Rwanda and Uganda, an alternative to monetization could have been a micro-credit and training program for small traders financed with cash resources.¹⁴ Would this, as opposed to the existing monetization program, have been a more cost-effective way of increasing the capacity and competitiveness of the marketing sector in those countries?

A strong case can be made that the Title III (not Title II) monetization of yellow maize grain in Mozambique during the early 1990s made crucial contributions to market development at a key time in the country's history, and that food was a more appropriate resource than cash (or other financial assistance) in this instance. See section 6.1. for a more extensive treatment of the role of monetization during emergencies.

A second case where monetization should be viewed as a first best option is to cover logistical costs of emergency operations where "food as food" is the most appropriate response *and* the local USAID mission or NGOs have shown the ability to achieve local market development goals using monetization. If the monetization cannot be expected to contribute to market development goals, and clearly if it generates negative side-effects, the logistical costs of the emergency operation should be funded with cash assistance (e.g., 202e funds) if that is available.

Theoretically, monetized food aid will be the "first best" option when local market conditions allow the food to be sold at a price above CIF plus cost recovery. Selling at such a price implies that there is not a market structure problem nor a problem of oversupply that the monetization would be exacerbating. This situation is exceedingly rare in practice. In a review of 39 Title II monetizations in 21 countries in 1994, Mendez England and Associates found that, while

_

¹⁴ This argument abstracts from the likely additionality of the Title II food aid resources in all three countries.

monetization achieved mean prices exceeding CIF in five countries, not a single country recovered CIF plus monetization costs.

In conclusion, there is insufficient evidence at this time to determine with confidence: (a) what the net effect of most monetizations is on markets in developing countries, and (b) whether the costs of achieving positive effects (as in Mozambique, Rwanda, and Uganda) through monetization justify the use of this mechanism as opposed to other means such as micro-credit and training, or import facilities. Given the high management costs of food aid, it appears likely that monetization will not often be the first best option. We turn now to the question of when it might be a second-best option.

5.2. When Is Monetization Justified as the "Second Best" Option?

If, as we argue, domestic political forces make Title II development food aid at least partially additional to the cash resources available through the program, then in a wide variety of situations monetization will be the best option among the limited set of available alternatives – it will be the "second best" option. This conclusion is based on the premise that NGOs have over the years improved the sustainability and impact of their development interventions, and have also developed a better understanding of markets to guide the design of their monetization process. 15 Data problems preclude a rigorous and broad-based assessment of NGO effectiveness, but evidence from Uganda (Howard 2001), Rwanda, and Mozambique suggests that the development interventions funded by monetization proceeds in those countries have had positive effects on household incomes, food security, and local institutional development. The earlier Mendez England and Associates review also found positive effects of NGO programs in many countries. When these effects are put in the context of the extremely limited capacity of most developing country governments to provide similar services to their populations, the role of NGO programs in filling rural service provision gaps, and in developing local capacity to provide these services (as the competitive grants program in Uganda does), becomes even more important.

As long as monetized food aid is an additional resource, the bar is relatively low for monetized food aid to be deemed a second best option: it must do more good than harm. In evaluating this balance, several factors need to be examined. The most important is the anticipated price at which the food aid will be monetized and the evidence that a CS presents to support that anticipation. Higher prices generate more resources for funding development activities, and also serve as an indicator of the lack of structural or oversupply problems that might make monetization inappropriate. A country with a chronic food deficit is more likely to benefit from monetization than other countries, and should be given priority; yet the lack of a chronic deficit should not be sufficient in itself to render monetization inappropriate. Finally, positive effects from a monetization are more likely if that monetization is structured to enhance competition and promote learning among small-scale traders.

¹⁵ See White and Eicher (1999) for a more critical assessment of NGO performance.

Another way to evaluate when monetization may be a "second best" option is to ask what will be the development cost of limiting the scope for monetization when food aid is an additional resource for Title II. If USAID restricts the scope for monetization, NGO portfolios in developing countries will move towards more direct distribution and food for work programs, and away from programs that contribute to long-term household food security by increasing agricultural productivity and household incomes. There may also be a reallocation of food aid towards countries judged more able to benefit from direct distribution, and away from those where income generating activities are judged to be most appropriate. These reallocations within and across countries will slow or possibly reverse a dramatic change in NGO behavior over the past decade, as they have increasingly turned to promoting rural development and income growth, as opposed to their original focus on relief and direct nutrition interventions.

Conceptually, the cost of such a change will include:

- The foregone benefit from the developmental NGO interventions that attempt to increase agricultural productivity and household incomes. We have argued that these benefits can be substantial.
- Any foregone positive effects on local market development from the monetizations themselves. These depend critically on the details of how NGOs implement the monetizations; we have argued that there is evidence of improvement in this regard, but that more research is needed.
- Any negative effects from undercutting markets and production incentives through direct distribution. These potential negative effects depend largely on the effectiveness of targeting of food aid; if the aid is targeted to households with little or no effective demand for the food, then negative effects will be minimal. The evidence, however, is that targeting is difficult and expensive, and often not successful in practice (see, for example, Jayne, Strauss, and Yamano 2001; Tschirley, Donovan, and Weber 1996). This suggests that negative effects on markets from direct distribution can be sizeable.

The benefits of a policy restricting the scope for Title II monetization will include:

- Any improved nutrition of households receiving the free food. These benefits can be substantial when programs are well targeted. But if targeting is not effective, the free food will be partially offset by reduced purchase of food, by increased sale of the households' own production, and by sale of the food received. The severity of these effects depends very much on the details of design and implementation of the feeding program.
- Any long-run productivity effects of the improved nutrition. These effects can be important, though they are difficult to capture empirically and show themselves over the medium- and long-run rather than the short-run. Once again, however, these effects will emerge only to the extent that targeting is effective.

• If targeting is relatively ineffective and the food aid substitutes for food purchases or allows greater food sales, there remains a resource transfer effect for households receiving the aid. If this is the case, then by definition the neediest households are not receiving the food. One also has to ask whether direct distribution of food aid is the most efficient and effective way to transfer resources to such households; most would argue that it is not.

The balance of benefits and costs from narrowing the scope for monetization depends almost entirely on the specifics of the direct feeding and development proposals (supported by monetization) that compete for the Title II food aid resource, and on the economic environment in which they operate. The effectiveness of targeting in direct distribution programs is especially crucial. Given the documented difficulties in targeting, and the likelihood that targeting will become even more difficult as more food flows through direct distribution channels, it is reasonable to expect that the costs (foregone benefits) of restricting the scope for monetization will outweigh benefits unless compelling evidence of effective targeting can be demonstrated. In light of the resource additionality of Title II food aid, we see no *a priori* reason why direct distribution should be favored over monetization in FFP's current portfolio.

5.3. When Should Monetization Not Be Used?

The most obvious situation where monetization should not be used is when cash assistance is available and would be the more efficient and effective resource. A more difficult - and more frequent - decision looms when the project or program that a monetization would support will not be implemented without the monetization. This will mostly involve development interventions but may also include direct feeding operations when cash resources are not available or are insufficient to cover logistical and management costs. From an operational standpoint, the question might best be cast as follows: "under what circumstances should FFP place a monetization proposal at or near the bottom of the list for funding?"

USAID's (1995) Food Aid and Food Security Policy Paper has been the principal guide over the past seven years on general agency food aid policy and specifically on review and approval of Title II DAPs. The paper states that "Title II resources will focus on improving household nutrition, especially in children and mothers, and on alleviating the causes of hunger, especially by increasing agricultural productivity." As a follow-up to the paper, the agency worked with food aid and development professionals and academics to develop a set of indicators, known as the *Title II Generic Performance Indicators for Development Activities*, to guide monitoring and evaluation of Title II programs. Both the Policy Paper and the indicators focus strongly on the type and expected impact of program interventions in the process of deciding when and where to

allocate food aid. The paper gives very little attention to the monetization process itself and its possible impact on markets, and none of the indicators deal with this issue.¹⁶

We suggest that this imbalance be redressed by introducing into DAP reviews an assessment of the quality of the CS marketing analysis, and of their demonstrated commitment to achieving market development effects through the proposed monetizations. Questions should include:

- ► Has the CS shown how the commodity is appropriate for local circumstances, based on consumer preferences (especially those of the poor) and potential impact of imports on production incentives? This is already done in the Bellmon Analysis.
- Has the CS demonstrated a structural problem in the market that they can address with monetization, and have they provided some detail about how they will address it? This goes beyond typical Bellmon analyses, which focus primarily on overall supply and government policy.¹⁷
- Barring the demonstration of a structural problem that can be ameliorated through monetization, has the CS investigated the organization and performance of the market and explicitly shown why the monetization will not exacerbate any existing problems? This, too, goes beyond typical Bellmon analysis.
- Has the CS addressed the previous two issues in a regional context, taking into consideration patterns of comparative advantage, production, and trade in the region? Current Bellmon determination guidance has almost no regional dimension (USAID 1985; Catholic Relief Services 1999).
- If there are multiple DAPs for a country, will they be done under an umbrella monetization? If not, compelling reasons must be provided. This is the current FFP policy (USAID 2001).
- Is there compelling evidence that the CS can obtain at least FAS on the sale, and preferably CIF? This is current FFP policy.

17

¹⁶ The paper makes one reference to possible negative effects of food aid on local markets, and one reference to possible positive effects. On the former, it states "Food aid should be managed so that it supports local agricultural production. This may require special efforts to utilize local markets for the distribution of food and careful timing of deliveries. Otherwise, the introduction of food aid can disrupt local agricultural markets ..." (Section IV.A.2). Regarding possible positive effects, the paper states in IV.A. that "In many cases, food-aid sales transactions within the recipient country have, in their own right, been an important development tool, helping to strengthen markets and encouraging policy change."

¹⁷ Updated guidance prepared by Catholic Relief Services for the Cooperating Sponsors' Monetization Manual in 1999 briefly mentions market structure issues (Catholic Relief Services 1999). See also Rubey (1999), who recommends substantially strengthened market analyses by CSs in preparing monetization proposals.

An emphasis in DAP reviews on the monetization itself is appropriate now for two reasons. First, while it must be emphasized that data problems complicate rigorous assessment of the impacts of NGO development interventions, available evidence primarily from the "gray literature" suggests that these organizations have made substantial progress improving their effectiveness and market orientation in this area, and that they have increasingly collaborated with local NGOs and governments in these efforts. The evidence is more spotty regarding NGO ability to use monetizations to improve markets, and it is clear that they focused their attention on this issue later than they did on the challenge of improving the impact and sustainability of their development interventions. Emphasizing NGO abilities to achieve market development goals through the monetization process itself thus establishes a higher standard for approving monetizations, and pressures NGOs to continue focusing on improvement in this area.

Second, a focus on the monetization process compels USAID and CSs to grapple directly with the characteristics of food aid that make it different from cash. These differences can create unique opportunities for food aid, as in Mozambique in the early 1990s (see section 6.1.). Focusing explicitly on the likely impacts of a proposed monetization may help identify other instances where food aid is the best resource for addressing marketing issues in a country. Food aid's differences more often make it a less efficient resource transfer than cash, especially for funding development activities. We have argued that food aid will, nonetheless, often be justified as a "second best" option due to its resource additionality, but have emphasized that a long-term objective should be to gradually replace monetized food aid with cash resources for funding of most of these activities. For this to happen, providers and users of food aid, especially when that food is monetized to obtain cash, need always to be reminded how and to what extent cash is frequently the preferred resource.

In closing, we emphasize again the need, driven by the reality that food aid is frequently an additional resource for specific missions and CSs, to take a pragmatic approach to decisions about food aid monetization in any specific circumstance. Answers to these questions about the monetization must be balanced against an assessment of the benefits from the development intervention that will be funded with the monetization proceeds.

.

That said, it must be noted that NGOs have made significant efforts over at least the past three years to improve their market analyses and tailor monetization processes to market realities. These authors know of at least four food aid monetization workshops organized by and for NGOs since 1999: July 1999 in Accra, November 1999 in Johannesburg, October 2000 in Delhi, and February 2001 in Lima. In additional to treating technical and reporting requirements, each of these workshops has had sessions on market analysis and alternative approaches to managing monetization to improve its market impact. This level of effort is impressive in light of the fact that Bureau for Humanitarian Response/Office of Food for Peace does not assess the monetization process itself in its review of DAPs.

6. KEY MONETIZATION ISSUES

This section deals with two key issues currently being debated in Title II: what role there may be for monetization under emergencies, and the implications of increased use of value-added commodities in Title II non-emergency programs.

6.1. Monetization Under Emergencies: Lessons from Mozambique's Title III Experience

Following independence in 1975, Mozambique fell into a protracted civil war that devastated rural areas, severely limited internal trade, and made Mozambique the poorest country in the world. As the war formally ended in late 1992, the country and its Southern African neighbors began to feel the effects of perhaps the worst regional drought of the past 100 years. This section first traces the role that monetized yellow maize food aid under Title III played in responding to the food security challenges posed by the war and the 1992 drought, and in aiding the country's rapid post-war recovery. The section then presents a series of lessons learned for future use of food aid in emergency situations. Though this experience is based on Title III, not Title II, the focus on the monetization process itself, rather than the use of the proceeds, suggests that the lessons apply equally well to possible Title II monetizations under emergencies.

6.1.1. The Use of Monetization During the War and Drought Emergencies

Mozambique was one of the most food aid dependent countries in the world for a decade from the early 1980s. White maize is the principal staple food in the country, and yellow maize from food aid was a very significant component of total cereals availability from at least 1989/90 through 1995/96. Yellow maize food aid typically fluctuated between 20% and 30% of total cereals availability, surging to 60% during the 1992 drought. Monetized ("commercial") food aid from the USAID Title III program averaged about a third of total food aid during that time, reaching a peak of over 270,000 metric tons during 1992/93.

This large monetization program allowed markets to play a key role in responding to the 1992 drought, even before the war ended. Officially, all Title III monetized food aid prior to 1991 was channeled to large millers producing a refined maize meal, which was sold at controlled prices in ration shops in the two main cities. Beginning in the mid-1980s, the role of the large millers and ration shops diminished substantially as more grain was diverted to the emerging informal marketing and small-scale milling sectors (MAF/MSU 1993; Sahn and Desai 1993).

As the ration shop system disintegrated and the informal trading sector emerged, donors (primarily USAID and EU) were looking for more market-oriented means of distributing monetized food aid. Beginning with shipments in mid-1991, donors negotiated with the Government of Mozambique for the grain to be sold directly to registered private wholesalers ("consignees") at fixed prices in the port cities. Many consignees were included, ensuring a competitive system at this level (Tschirley, Donovan, and Weber 1996). From the time it started

in mid-1991 through March 1993, over 350,000 metric tons of yellow maize grain were sold into the market in this manner. The consignees receiving these quantities sold them into the highly competitive informal market, which was closely linked to the small-scale milling sector. Both these sectors had been growing since the late 1980s, but by all accounts the large increase in monetized food aid flowing directly to the informal sector greatly fueled their growth. It is especially noteworthy that, despite the war, monetized maize flowed quickly to markets throughout the south and center of the country through the informal marketing system.

The impact of the monetization on maize prices and availability was crucial to maintaining the poor's purchasing power. White maize nearly disappeared from markets as the 1992 marketing year progressed, and average prices that year jumped about 60% over the previous year, to levels never seen before or since. In contrast, yellow maize remained available in urban markets and its price fell slightly, averaging less than half the price of white maize over the entire marketing year.

Informal food markets also channeled much of this aid into the small-scale maize milling sector, with additional benefits to poor consumers. Based on much lower processing costs, market prices of whole yellow and white meals in Maputo averaged less than 80% of the prices of refined meals of the same color during 1991-1997. Whole yellow meal was about three times more likely than refined yellow meal to be present in Maputo markets during this time; whole white meal was also more often available than its refined counterpart. Both attest to the crucial role that the small-scale milling sector played in ensuring urban- and peri-urban food security during this time. Research shows that households that purchased whole yellow meal had mean incomes approximately 25% below those of non-purchasing households, and that low income households were nearly twice as likely as higher income households to consume whole meals when these carry modest (20%) price discounts relative to refined meals (Tschirley, Donovan, and Weber 1996).

The medium-term effects of the Title III monetization were equally important. The quantities made available through the program allowed both the informal trading sector and the small-scale milling sector to be flourishing by the time the peace accords were signed in October 1992, and each of these provided the foundation for Mozambique's progress in food security since that time. They did so by: (1) linking rural and urban areas through trade flows; (2) increasing the availability of low-cost whole meals in markets; and (3) engaging in active cross-border trade (nearly all imports) in food products. While each of these factors would eventually have emerged without the yellow maize monetization program, there is little doubt that the volumes that were commercialized in that program, and the way they were sold, spurred the development of competitive and experienced informal marketing and small-scale milling sectors sooner than would otherwise have occurred. These sectors, in turn, allowed the country to recover more quickly from war and drought than it otherwise would have done.

6.1.2. Difficulties Coordinating Monetized and Emergency Food Aid

Despite the important role played by markets in the food aid response, coordination between the food aid agencies and the private sector had serious shortcomings. The emergency and commercial food aid programs also showed little success in coordinating their activities. Unprecedented volumes of emergency food aid arrived in Maputo during December 1992 and January 1993. Coming on top of similarly unprecedented commercial food aid arrivals in October and November 1992, these quantities overwhelmed the capacity of the port (and the emergency food distribution system), with three main results. First, large volumes of emergency grain were diverted to markets. Though precise figures cannot be established, knowledgeable sources within the emergency program in Mozambique estimate that one-third of all emergency grain during this time was ultimately sold on markets. Second, these diversions, plus the arrival of additional food aid in the middle of the good 1993 harvest, changed market conditions dramatically. Throughout 1993, real prices of yellow maize grain at retail in Maputo were approximately one-half the levels of 1990 and 1991 (prior to the drought). Real white maize prices through much of 1993 were 70% to 80% of their level during the same periods of 1990 and 1991. In the central region retail yellow maize prices throughout 1993 and into 1994 were less than half those in Maputo, and white maize prices were less than one-third of import parity levels. Finally, the low market prices lead many consignees to refuse their full quotas of commercial food aid, and grain accumulated and began to spoil.

6.1.3. Conclusions

In short, food aid policy had both positive and negative effects on the development of food markets in 1992. Government and donors deserve high praise for their decision in 1991 to adopt a more market-based food aid distribution policy, and for sticking with that policy through the 1992 drought. Yet, they thought through only a portion of the issues that need to be considered if one wishes fundamentally to alter the approach to food aid programming. Issues of commercial (monetized) food aid pricing and distribution, and of how to avoid the almost universal tendency to overestimate the need for emergency food aid for direct distribution, must be more carefully considered now and in the future.

Key lessons to draw from this experience include:

- By stabilizing market availability and prices of food, food aid monetization during emergencies can protect the purchasing power of poor consumers and reduce the need for direct distribution of food aid.
- Monetization during emergencies can also sustain a private trading sector that can: (a) increase food aid's reach by distributing the aid much more broadly and quickly to households with effective demand than could be accomplished by donor or government distribution; and (b) link surplus and deficit areas more quickly through markets once the emergency is over.

- For these effects to be fully realized, donors and government (if Title III) or CSs (if Title III) have to design the sales process so that the first-buyer level ("consignees" in this paper) is sufficiently competitive to avoid large rents when the aid is sold on. This implies a balance between minimizing the cost of the operation (by including fewer and larger buyers) and ensuring that the benefits of the program are broad-based. In Mozambique, the number of traders purchasing from individual shipments in 1992 and 1993 ranged from 18 to 46, with a total of 91 involved over seven different shipments. This was clearly sufficient to ensure competition at this level (Tschirley, Donovan, and Weber 1996).
- It is also necessary that the marketing system receiving the grain have a competitive level of traders who can buy from the first-level buyers. The Mozambique Title III Program strengthened and expanded the reach of this strata of traders, but did not create it. Thus, donors, government, or NGOs need to conduct a basic analysis of market structure and behavior prior to designing such a program. However, it should be recalled that this market sector existed in both Maputo and Beira despite the extremely adverse conditions imposed by the war. While trade within the cities was safe, travel outside was exceptionally dangerous and many traders lost their lives in ambushes. Their persistence despite these difficulties suggests that these informal marketing sectors are highly adaptable and likely to exist and be able to respond to new opportunities in many emergency situations. It is also noteworthy that no direct assistance (e.g., credit) was provided these smaller traders, yet they were able to absorb 350,000 MT of grain over less than two years and distribute it widely throughout the south and center of the country.
- Lack of coordination between commercial and emergency food aid programs can create serious problems of oversupply and depressed prices for a substantial period of time after the ending of the emergency. Poor coordination can also undermine the monetization program, as first-buyers become unwilling to take delivery on the quantities they originally agreed to purchase. Much more effort needs to be put into coordinating direct distribution and monetization programs in these situations; frequent sharing of information among donors *and with the private sector* on the anticipated timing and size of arrivals in each program is key.

6.2. Implications of Increased Use of Value-Added Commodities in Food Aid Shipments

The domestic food aid debate is increasingly influenced by processed food manufacturers, as opposed to the traditional commodity interest groups. The American Soybean Association states that "food aid represents one of few growth market opportunities for soybeans and soy products ... USAID should add ... crude soybean oil and soybean meal to its list of value-added products under Title II of P.L. 480" (American Soybean Association 2002). The North American Miller's Association (NAMA) states that "NAMA's trade policy focuses primarily on the P.L. 480, Title II food aid program. ... the large percentage of blended and fortified products move overseas

under the Title II food donation program ..." (NAMA 2002). Out of 14 "current issues" on NAMA's web page, five are directly related to food aid.

Policy decisions and data from USAID suggest that this effort by food processors is having some effect. In its monetization guidelines for 2000, USAID states "Proposals advocating the monetization of value-added commodities ... and sales designed and executed in consultation with the U.S. food export and processing trade will receive priority ... Priority will also be given to monetization supporting ... the direct distribution of value-added Title II commodities" (United States Government 1999). The agency's Development Program Policies for 2001 state that "FFP hopes to be able to further adjust the portfolio mix ..., resulting in an ... increase in the use of direct distribution and processed commodities and a ... decrease in the levels of monetization" (USAID 2001). Call forward data for 2002 indicate that 37% of emergency and 47% of development Title II food aid, by volume, was in processed form (USAID 2002a; USAID 2002b). These figures rise to 48% and 52%, respectively, if bagged commodities are included. Fifteen percent and 30%, respectively, constituted specialized commodities such as corn-soy blend (CSB), wheat-soy blend (WSB), and bulgur, which are less easily monetized than wheat, wheat flour, and vegetable oil. CSB and WSB are produced almost exclusively for the Title II market (USAID 2002c), and are seen as a growth market by industry.

The backdrop to this push for value-added commodities in Title II is the regulation that "not less than 75%" of the quantity of Title II commodities "be in the form of processed, fortified, or bagged commodities" (USAID 2001). In attempting to reach this mandated share, USAID clearly recognizes that increased monetization stands in the way. The agency prefers "monetization of value-added commodities ... over bulk commodities," but recognizes that "bulk commodities are often used in monetization because of their easier marketability, making it more difficult to meet the 75% value-added mandate" (USAID 2001). The agency's guidance in 2000 that 25% of Title II non-emergency commodities at the country level be direct distributed was an explicit attempt to increase the value-added commodity share. In the face of strong opposition from CSs and some USAID missions, the guidance has had limited effect.

Thus, the most generalizable effect of an increase in the use of value-added products in Title II programs will be an increase in the proportion of commodities that are direct distributed rather than monetized. This effect will be stronger to the extent that CSB, WSB, and bulgur are used. In FY02, these three commodities together made up 15% of non-emergency call forwards (30% if India is included) in volume terms. The unfamiliarity of these products to consumers means that they are appropriate only for direct-feeding operations; cost recovery in monetization would almost certainly be extremely low. This characteristic, combined with the fact that much targeting of direct feeding is highly imperfect, also means that these products will often be a very inefficient resource transfer: recipients will sell some portion on the market, but will receive prices well below import parity. This inefficiency will be greater than when monetizing at low prices because the CSs will have incurred the costs of the direct feeding operation while, in the end, some portion of the commodity is converted to cash by beneficiaries.

¹⁹ P.L.480, section 204(b)(1).

Beyond this general view, the impact of increased *monetization* of value-added commodities depends on the specific circumstances under which it occurs. Use of value-added commodities in monetization will obviously reduce or eliminate opportunities for value-added processing of the food aid commodities themselves, but this will not necessarily harm the growth of such processing with domestically produced commodities. Mozambique and Uganda illustrate this fact for crude- and refined vegetable oil, respectively. In Mozambique, crude vegetable oil monetization allowed refiners to use installed capacity more efficiently, while the proceeds from the monetization were used by NGOs to promote oilseed production, micro-scale processing, and marketing. Together, these efforts have lead to substantial increases in sunflower and sesame production, and to increased investment in refining capacity. By any measure, the crude vegetable oil monetization program in Mozambique has had positive developmental effects on the country. These effects would have been more difficult to achieve had the program used refined oil, as this product would not have allowed processors to reduce unit costs through increased processing, and would have competed directly with their final product.

Nevertheless, refined oil imports under Title II in Uganda have been associated with partial rehabilitation of its oilseeds sector. Title II imports represent only 2% to 7% of total domestic production plus imports, and so have little risk of creating large disincentive effects for domestic production. The funds from monetizing the oil help finance investments in oilseeds research, extension, seed, marketing and processing activities. These investments contributed to the diversification and more than doubling of domestic oilseed production between 1985-2000 (Howard 2001).

7. CONCLUSIONS AND RECOMMENDATIONS

The central conclusion of this review is that, in assessing the appropriateness of using food aid as a development resource, and especially monetized food aid, the efficiency of the resource transfer must be evaluated in light of the resource's additionality. We have argued that cash will most often be the more efficient resource and will be less likely to generate negative side effects, but that cash in the short-run will generally not be available. The result is that rejecting monetization will often mean rejecting a development activity. Thus, the relevant short-run question is not whether monetization is the best resource, but whether, in any specific circumstance, we can be confident that the food aid's impact will, on balance, be positive. Though lack of data makes rigorous assessments difficult, our assessment of the "gray literature" is that USAID missions and CSs have learned enough over the past decades to ensure that this balance is positive in most cases.

Thus, given the political dynamics that drive food aid availability and that typically make it a resource that is additional to available cash resources, the paper argues that monetization will frequently be the best among the limited set of available options – it will be a "second best" option. Imposing arbitrary limits on the amount of monetization will result in fewer development interventions by CSs, and will stop or slow the dramatic change in CS behavior over the past decade towards long-term development and away from short-term relief. If such limitations result in increased direct distribution of food aid, the likelihood of negative effects on markets and on local production incentives will be increased.

The resource additionality of food aid, combined with its recognized disadvantages compared to cash under most circumstances, suggests that USAID should continue the process it has already begun of defining more carefully (and narrowly) when and where food aid is the most effective development resource, lobbying for cash instead of food assistance when the former is most appropriate, but remaining pragmatic to make best use of food aid when it is available as an additional resource. Among other things, this implies that innovations such as monetization should continue to be used when appropriate, and that the circumstances under which it is judged appropriate will be more frequent than if resource additionality did not obtain.

There is increasing "soft" evidence that NGOs are able to achieve positive effects from the monetization process itself. Two questions need to be answered to determine whether this evidence adds up to a justification for using monetization, as opposed to other means, to achieve these objectives. First, does this "soft" evidence stand up to more rigorous analysis of the positive and any negative effects of monetization on markets? Second, is monetization the most cost-effective means of achieving these objectives?

Specific recommendations from this study are:

1. USAID should argue for U.S. farm policy that more fully decouples support payments from domestic prices, to weaken the link between food aid and domestic policy. It

- should also argue in favor of cash assistance gradually replacing commodity assistance for most Title II development activities.
- 2. FFP should place no arbitrary limits on the amount of monetization or targets for the amount of direct distribution in Title II. As long as food aid is an additional resource, its positive effects will be increased if CSs have flexibility in how it is used.
- 3. FFP should place greater emphasis in its DAP reviews on the monetization process itself, including evidence presented by CS of specific structural/competitive problems in the market that the CS can address through monetization, and how they plan to do so.
- 4. The current *generic performance indicators* should be modified to include indicators of the effectiveness of the monetization process itself. The new indicators should reflect:
 (a) the transparency of the process; (b) the contribution of the process to resolving structural/competitive problems in local markets; and (c) the sales price relative to contemporaneous market prices in the same and nearby markets.
- 5. Bellmon analyses should give greater attention to regional dimensions, including patterns of comparative advantage, production, and trade in the region.
- 6. FFP should continue its emphasis on achieving sales prices in the upper range of the FAS-CIF interval.
- 7. To facilitate more objective and rigorous analysis of monetization in future, CSs should be required to collect and maintain accessible data bases of:
 - a. Price information for the commodity being monetized and, where relevant, one to two close substitutes in consumption. For commodities that can be sold directly at retail without further processing (like maize, refined vegetable oil, and wheat flour), CSs should collect prices on at least a monthly basis in retail markets of the locations where the monetizations take place and in a small number of outlying retail markets. For unrefined vegetable oil, wholesale or producer level oilseed prices need to be collected (also on at least a monthly basis) in several markets of major producing zones. For wheat grain, prices of one to two locally produced substitutes in consumption should be collected at retail level. The methods for price collection need to follow existing best practices and be documented, and the data maintained in time-series form in an electronic data base accessible to potential analysts.
 - b. Information on each individual monetization, including date, specific location, sales price, number of buyers, and total volume.
- 8. FFP should commission a detailed study of monetization experience since 1994 (the date of the last detailed study of food aid monetization). This study should address:
 - a. The quality of marketing analyses supporting DAP monetizations;

- b. The organization and transparency of the monetization process;
- c. The impacts on market structure/competitiveness of monetizations;
- d. Costs of monetization; how does the cost of more transparent and smaller-scale monetization compare with apparent benefits? How does the management cost of monetization compare to alternatives such as import facilities for wheat and unrefined vegetable oil, micro-credit schemes for small traders, and capacity building for small local traders?
- e. Cost recovery. Has cost recovery improved since the last assessment in 1994? If so, what factors have driven this improvement? and
- f. Estimated impact of monetization on local market prices. For this analysis to be done, countries will have to be selected carefully to use NGO data where that has been collected in a sufficiently detailed manner (as outlined in point 7 above), or in countries with good public market information systems with data on the relevant commodities.

REFERENCES

- American Soybean Association. 2002. *Soy Food Aid Initiative: Overview*. St. Louis, MO. http://www.soygrowers.com/?p=3210
- Atwood, David. 2000. Cutting Hunger and Poverty in Half: Interest Groups and a Renewed U.S. Commitment in the Post Cold War World. The Industrial College of the Armed Forces, National Defense University, Fort McNair. Washington, D.C.
- Becker, Geoffrey S., and Jasper Womack. 2002. *The 2002 Farm Bill: Overview and Status* (updated April 9, 2002). Congressional Research Service Report for Congress. Washington, D.C. (Downloadable at http://www.cnie.org/NLE/CRSreports/Agriculture/ag-112.pdf)
- Browne, W.P., K. Allen, and D.B. Schweikhardt. 1997. Never Say Never Again: Why the Road to Agricultural Policy Reform Has a Long Way to Go. *Choices* 12.4: 4.
- Catholic Relief Services (CRS). 1999. CRS Draft Guidelines for Conducting Monetization Market Analyses in West Africa. *Cooperating Sponsor Monetization Manual* Appendix L. Food Aid Management. http://www.foodaidmanagement.org/pdfdocs/monetization/monetizationmanual/appendixl.pdf
- Clay, E.J. 1991. Food Aid, Development, and Food Security. In *Agriculture and the State*. *Growth, Employment and Poverty in Developing Countries*, ed. C.P. Timmer. Ithaca, N.Y.: Cornell University Press.
- Clay, Edward, Sanjay Dhiri, and Charlotte Benson. 1996. Joint Evaluation of European Union Programme Food Aid: Synthesis Report. London: Overseas Development Institute. Downloadable at http://www.um.dk/danida/evalueringsrapporter/1996-13/index.asp.
- Clay, Edward, Nita Pillai, and Charlotte Benson. 1998a. *The Future of Food Aid: A Policy Review*. London: Overseas Development Institute.
- Clay, Edward, Nita Pillai, and Charlotte Benson. 1998b. *Food Aid and Food Security in the 1990s: Performance and Effectiveness*. Working Paper 113. London: Overseas Development Institute.
- Howard, Julie. 2001. Title II Food Aid Monetization: Uganda Case Study. East Lansing: Michigan State University. Mimeo.
- Jayne, T.S., John Strauss, and Takashi Yamano. 2001. Giving to the Poor? Targeting of Food Aid in Rural Ethiopia. *World Development* 29.5: 887-910.
- Kruger, Anne O., Constantine Michalopoulos, and Vernon W. Ruttan. 1989. *Aid and Development*. Baltimore: Johns Hopkins University Press.

- Maxwell, S. 1991. The Disincentive Effect of Food Aid: A Pragmatic Approach. In *Food Aid Reconsidered: Assessing the Impact on Third World Countries*, ed. Edward J. Clay and Olav Stokke. London: Frank Cass.
- McCalla, Alex. 2001. The Long Arm of Industrialized Countries: How Their Agricultural Polices Affect Food Security. Prepared for the Conference on Sustainable Food Security for All by 2020, 4-6 September, Bonn, Germany.
- Mendez England and Associates. 1995. Title II: Monetization Evaluation. Submitted to USAID/FFP. (Downloadable at http://www.usaid.gov/hum_response/ffp/finalrp2.htm)
- Ministry of Agriculture and Fisheries/Michigan State University Research Team. 1993. *The Organization, Behavior, and Performance of the Informal Food Marketing System in Maputo*. Working Paper No. 10. Maputo, Mozambique.
- North American Miller's Association. 2002. *Program Activities*. www.namamillers.org/int_fa_program.html
- Organization for Economic Cooperation and Development (OECD). 2000a. *ODA by Member State*, 1950-1998. http://www.oecd.org/oecd/pages/home/displaygeneral/0,3380,EN-countrylist-57-2-no-no-77-57,00.html
- Organization for Economic Cooperation and Development (OECD). 2000b. *Table 19. Aid by Major Purposes, 1998.* www.oecd.org/dac/htm/dacstats.htm.
- Rubey, Lawrence. 1999. Towards a Set of Principles for Food Aid Monetization. Washington, D.C.: U.S. Agency for International Development. Mimeo.
- Ruttan, V.W. 1993. Why Food Aid? Baltimore: Johns Hopkins University Press.
- Sahn, David, and Jaikishan Desai. 1993. Food Rationing in Mozambique: An Analysis of the Emergence of Parallel Markets. Cornell University Food and Nutrition Policy Program. Washington, D.C.: Cornell University. Mimeo.
- Singer, H.W., J. Wood, and T. Jennings. 1987. *Food Aid: The Challenge and the Opportunity*. Oxford: Oxford University Press.
- Tschirley, David, Cynthia Donovan, and Michael T. Weber. 1996. Food Aid and Food Markets: Lessons from Mozambique. *Food Policy* 21.2: 189-210.
- United States Government. 1999. Title II Programmatic Monetization Guidelines for Fiscal Year 2000. *Federal Register* (Notices). 64.99: 27955. http://www.fsis.usda.gov/OPPDE/rdad/FRPubs/99-030N.pdf

- USAID. 1985. *Background Paper and Guide to Addressing Bellmon Amendment Concerns on Potential Food Aid Disincentives and Storage*. U.S. Agency for International Development, Bureau for Food for Peace and Private Voluntary Assistance. Washington, D.C.: USAID. http://www.usaid.gov/hum_response/ffp/bellmon.htm.
- USAID. 1995. *Food Aid and Food Security Policy Paper*. Washington, D.C.: USAID. http://www.usaid.gov/pubs/ads/200/foodsec/foodsec.pdf
- USAID. 2000. U.S. Overseas Loans and Grants and Assistance from International Organizations. Washington, D.C.: USAID.
- USAID. 2001. P.L. 480 Title II Development Program Policies. Washington, D.C.: USAID.
- USAID. 2002a. Food for Peace Emergency Program References: Emergency Call Forward Status Report (updated monthly). http://www.usaid.gov/hum_response/ffp/
- USAID. 2002b. Food for Peace Non-Emergency Program References: Non-Emergency Call Forward Status Report (updated monthly). http://www.usaid.gov/hum_response/ffp/
- USAID. 2002c. Non-Fat Dry Milk Cable: Availability of Instant Corn Soy Milk (ICSM), Corn Soy Milk (CSM), and Wheat Soy Milk (WSM) For Public Law (P.L.) 480 Title II Programs. Washington, D.C.: USAID. http://www.usaid.gov/hum_response/ffp/non_fatdrymilkcable.html
- USDA. 2001. Foreign Food Assistance Home Page. http://www.fsa.usda.gov/daco/pdd/eob/fy00reports.htm
- White, Robert, and Carl K. Eicher. 1999. *NGOs and the African Farmer: A Skeptical Perspective*. MSU Department of Agricultural Economics Staff Paper No. 99-01. East Lansing: Michigan State University.

MSU International Development Papers

How to order from the MSU Bulletin Office:

All domestic orders under \$100 must be prepaid either by check or credit card. Make checks payable to MICHIGAN STATE UNIVERSITY. Charges against credit cards (VISA and MasterCard) must be accompanied by the card's full number and expiration date and the cardholder's signature and daytime business/home phone number. Orders totaling \$100 or more can be billed by MSU. Institutions and firms should use their official purchase order.

All foreign orders must be prepaid only in U.S. dollars by American Express Money Order, International Money Order, U.S.A. Postal Money Order, U.S. Dollar World Money Order, or check, which must be drawn on a United States bank.

For foreign orders, include an additional 20 percent for surface postage. For air mail orders, please call for the appropriate amount due.

Please do not send cash. Payment must be included with orders. All sales are final. When ordering from the Bulletin Office by mail, you will need each item's complete identification number and price. Be sure to print your complete address, including ZIP code.

MSU INTERNATIONAL DEVELOPMENT PAPERS

Fill out and send the order form provided to:

MSU Bulletin Office 10-B Agriculture Hall Michigan State University East Lansing, MI 48824-1039 Fax: (517)353-7168

Tel: (517)355-0240 E-mail: distbulk@msue.msu.edu

Selected copies are available free of charge to individuals in developing countries, although supplies of these are limited. If free copies are no longer available, MSU will send you order information. USAID officials may obtain free copies through USAID's Center for Development Information and Evaluation (CDIE) or single copies are available free of charge by writing to the above address at Michigan State University.

IDP 20 Cash Crop and Foodgrain Productivity in Senegal:

Historical View, New Survey Evidence, and Policy

Available from the MSU Bulletin Office

MISO HATE	MNATIONAL DEVELOFISENT FAFERS
IDP 13	Market by T. S. Jayne. 1993. 104 pp. \$11.00 (CDIE
IDP 14	reference PN-ABJ-359) The Impact of Agricultural Technology in Sub-Saharan Africa: A Synthesis of Symposium Findings by James F. Oehmke and Eric C. Crawford. 1993. 33 pp. \$7.00
IDP 14F	(CDIE reference PN-ABP-321) L'Impact de la technologie agricole en Afrique
IDP 14F	subsaharienne: Synthese des conclusions du colloque par James F. Oehmke and Eric W. Crawford. 1993. 34 pp. \$7.00 (CDIE reference PN-ABQ-056)
IDP 15	Market-Oriented Strategies to Improve Household Access to Food: Experience from Sub-Saharan Africa by T.S. Jayne, D.L. Tschirley, John M. Staatz, James D.
	Shaffer, Michael T. Weber, Munhamo Chisvo, and Mulinge Mukumbu.* 1994. 61 pp. \$9.00 (CDIE reference PN-ABS-755)
IDP 16	Improving the Measurement and Analysis of African Agricultural Productivity: Promoting Complementarities between Micro and Macro Data by Valerie Kelly, Jane Hopkins, Thomas Reardon, and Eric Crawford. 1995. 44 pp. \$7.00 (CDIE reference PN-ABX-166)
IDP 17	Promoting Food Security in Rwanda Through Sustainable Agricultural Productivity: Meeting the Challenges of Population Pressure, Land Degradation, and Poverty by Daniel C. Clay, Fidele Byiringiro, Jaakko Kangasniemi, Thomas Reardon, Bosco Sibomana, Laurence Uwamariya, and David Tardif-Douglin. 1995.
IDP 18	115 pp. \$11.00 (CDIE reference PN-ABX-501) Promoting Farm Investment for Sustainable Intensification of African Agriculture by Thomas Reardon, Eric Crawford, and Valerie Kelly. 1995. 37 pp. \$7.00
IDP 19	(CDIE reference PN-ABX-753) Effects of Market Reform on Access to Food by Low- Income Households: Evidence from Four Countries in Eastern and Southern Africa by T.S. Jayne, L. Rube, D. Tschirley, M. Mukumbu, M. Chisvo, A. Santos, M. Weber, and P. Diskin. 1995. 83 pp. \$9.00. (CDIE reference PN-ABX-754)

	Implications by Valerie Kelly, Bocar Diagana, Thomas
	Reardon, Matar Gaye, and Eric Crawford. 1996. 140 pp.
	\$13.00 (CDIE reference PN-ABY-173)
IDP 21	Fertilizer Impacts on Soils and Crops of Sub-Saharan
	Africa by David Weight and Valerie Kelly. 1999. 96 pp.
	\$11.00 (CDIE reference PN-ACG-493)
IDP 22	Determinants of Farm Productivity in Africa: A Synthesis
	of Four Case Studies by Thomas Reardon, Valerie Kelly,
	Eric Crawford, Thomas Jayne, Kimseyinga Savadogo,
	and Daniel Clay. 1996. 50 pp. \$7.00 (CDIE reference
	PN-ABZ-220)
IDP 23	Targeting of Food Aid in Rural Ethiopia: Chronic Need or
	Inertia? by T.S. Jayne, John Strauss, Takashi Yamano,
	and Daniel Molla. 2000. 84 pp. \$9.00 (CDIE reference
	PN-ACH-396)
IDP 24	Smallholder Income and Land Distribution in Africa:
	Implications for Poverty Reduction Strategies by T.S.
	Jayne, Takashi Yamano, Michael Weber, David Tschirley,
	Rui Benfica, David Neven, Anthony Chapoto, and Ballard
	Zulu. 2001. 42 pp. \$7.00 (CDIE reference PN-ACN-726)

WORKING PAPERS				
IDWP 39/1	The Impact of Investments in Maize Research and Dissemination in Zambia. Part I: Main Report. Julie Howard with George Chitalu and Sylvester Kalonge.			
IDWP 39/2	1993. 112 pp. \$11.00 (CDIE reference PN-ABS-724) The Impact of Investments in maize Research and Dissemination in Zambia. Part II: Annexes. Julie Howard with George Chitalu and Sylvester Kalonge.			
IDWP 40	1993. 81 pp. \$9.00 (CDIE reference PN-ABS-727) An Economic Analysis of Research and Technology Transfer of Millet, Sorghum, and Cowpeas in Niger by Valentina Mazzucato and Samba Ly. 1994. 104 pp. \$11.00. (CDIE reference PN-ABT-283 or PN-ABS-728)			
IDWP 41	•			

IDWP 42	The Rate of Return to Agricultural Research in Uganda: The Case of Oilseeds and Maize by Rita Laker-Ojok. 1994. 56 pp. \$7.00 (CDIE reference PN-ABS-730)	IDWP 59	Finding the Balance Between Agricultural and Trade Policy: Rwanda Coffee Policy in Flux by David Tardif- Douglin, Jean-Léonard Ngirumwami, Jim Shaffer,
IDWP 43	Assessing the Impact of Cowpea and Sorghum Research		Anastase Murekezi, and Théobald Kampayana. 1996.
	and Extension in Northern Cameroon by James A. Sterns and Richard H. Bernsten. 1994. 48 pp. \$7.00 (CDIE	IDWP 60	•
IDWP 44	reference PN-ABS-731) Food Security II Cooperative Agreement: Project Fact		Dinopoulos. 1996. 25 pp. \$7.00 (CDIE reference PN-ABY-804)
	Sheets (1994 Version) by MSU Food Security II	IDWP 61	Zambia's Stop-And-Go Revolution: The Impact of Policies and Organizations on the Development and
	Research Team. 1994. 104 pp. \$11.00 (CDIE reference PN-ABW-277)		Spread of Maize Technology by Julie A. Howard and
IDWP 45	The Potential Returns to Oilseeds Research in Uganda: The Case of Groundnuts and Sesame by Rita Laker-		Catherine Mungoma. 1996. 39 pp. \$7.00 (CDIE reference PN-ABY-803)
	Ojok. 1994. 50 pp. \$7.00 (CDIE reference PN-ACF- 662)	IDWP 62	
IDWP 46	Understanding Linkages among Food Availability,		and Kathleen Beegle. 1996. 60 pp. \$9.00 (CDIE
	Access, Consumption, and Nutrition in Africa: Empirical Findings and Issues from the Literature by Patrick	IDWP 63	reference PN-ABY-848) Transforming Poultry Production and Marketing in
	Diskin.* 1994. 47 pp. \$7.00 (CDIE reference PN-ABS-732)		Developing Countries: Lessons Learned with Implications for Sub-Saharan Africa by Laura L. Farrelly. 1996. 46 pp.
IDWP 47	Targeting Assistance to the Poor and Food Insecure: A		\$7.00 (CDIE reference PN-ABY-849)
	Review of the Literature by Mattias Lundberg and Patrick Diskin.* 1994. 56 pp. \$7.00 (CDIE reference PN-ABS-	IDWP 64	Market Information Sources Available Through the Internet: Daily to Yearly Market and Outlook Reports,
IDWP 48	733) Interactions Between Food Market Reform and Regional		Prices, Commodities and Quotes by Jean-Charles Le Vallée. 1999. 30 pp. \$7.00 (CDIE reference PN-ACF-
1DW1 40	Trade in Zimbabwe and South Africa: Implications for		672)
	Food Security by T.S. Jayne, T. Takavarasha, and Johan van Zyl. 1994. 39 pp. \$7.00 (CDIE reference PN-ACA-	IDWP 65	Food Security II Cooperative Agreement: Project Fact Sheets (1996 Version) by MSU Food Security II
IDWP 49	239)		Research Team. 1997. 190 pp. \$15.00 (CDIE reference PN-ABZ-902)
1DVVI 45	Planning in Sub-Saharan Africa, by Duncan Boughton,	IDWP 66	Improving the Impact of Market Reform on Agricultural
	Eric Crawford, Julie Howard, James Oehmke, James Shaffer, and John Staatz. 1995. 59 pp. \$9.00 (CDIE		Productivity in Africa: How Institutional Design Makes a Difference by T.S. Jayne, James D. Shaffer, John M.
IDWP 49F	reference PN-ABU-948)		Staatz, and Thomas Reardon. 1997. 39 pp. \$7.00 (CDIE reference PN-ACB-867)
IDVVF 49F	programme de recherche agricole en Afrique sub-	IDWP 67	Final ReportWorkshop on Experiences and Options for
	saharienne, by Duncan Boughton, Eric Crawford, Julie Howard, James Oehmke, James Shaffer et John Staatz.		Priority Setting in NARS, August 12-16, 1996, Nairobi, Kenya, edited by Julie Howard and Eric Crawford. 1997.
IDWP 50	1997. 67 pp. \$9.00 (CDIE reference PN-ACA-071)	IDWP 68	76 pp. \$9.00 (CDIE reference PN-ACB-868)
IDVVP 30	South Africa, by T.S. Jayne, Milan Hajek and Johan van	1DW1 00	Marketing Margins in Ethiopia, by T.S. Jayne, Asfaw
	Zyl. 1995. 51 pp. \$7.00 (CDIE reference PN-ABW-091)		Negassa, and Robert J. Myers. 1998. 21 pp. \$7.00 (CDIE reference PN-ACC-230)
IDWP 51	Confronting the Silent Challenge of Hunger: A	IDWP 69	What Makes Agricultural Intensification Profitable for Mozambican Smallholders? by Julie A. Howard, José
	Conference Synthesis, by T.S. Jayne, David Tschirley, Lawrence Rube, Thomas Reardon, John M. Staatz, and		Jaime Jeje, David Tschirley, Paul Strasberg, Eric W.
	Michael Weber. 1995. 37 pp. \$7.00 (CDIE reference PN-ABW-276)		Crawford, and Michael T. Weber. 1998. 98 pp. \$11.00. (CDIE reference PN-ACD-889)
IDWP 52	•	IDWP 70	
	Extension Policy, by Bruno Henry de Frahan. 1995. 82		Profitability by David Yanggen, Valerie Kelly, Thomas
IDWP 53	pp. \$9.00 (CDIE reference PN-ABW-761) Who Eats Yellow Maize? Preliminary Results of a		Reardon, and Anwar Naseem. 1998. 109 pp. \$11.00 (CDIE reference PN-ACD-890)
	Survey of Consumer Maize Preferences in Maputo,	IDWP 71	Effects of Agricultural Commercialization on Food Crop Input Use and Productivity in Kenya by Paul J. Strasberg,
	Mozambique, by David L. Tschirley and Ana Paula Santos. 1995. 16 pp. \$7.00 (CDIE reference PN-ABX-		T.S. Jayne, Takashi Yamano, James Nyoro, Daniel
IDWP 54	988) Food Security II Cooperative Agreement: Project Fact		Karanja, and John Strauss. 1999. 28 pp. \$7.00 (CDIE reference PN-ACE-364)
15111 01	Sheets (1995/96 Version), compiled by MSU Food	IDWP 72	Successes and Challenges of Food Market Reform: Experiences from Kenya, Mozambique, Zambia, and
	Security II Research Team. 1996. 151 pp. \$13.00. (CDIE reference PN-ABY-072)		Zimbabwe by T.S. Jayne, Mulinge Mukumbu, Munhamo
IDWP 55	Trends in Real Food Prices in Six Sub-Saharan African Countries, by T.S. Jayne, et al. 1996. 70 pp. \$9.00		Chisvo, David Tschirley, Michael T. Weber, Ballard Zulu, Robert Johansson, Paula Santos, and David Soroko.
	(CDIE reference PN-ABY-172)	ID\A/D 70	1999. 45 pp. \$7.00 (CDIE reference PN-ACE-389)
IDWP 56	Food Marketing and Pricing Policy in Eastern and Southern Africa: Lessons for Increasing Agricultural	IDWP 73	Macro Trends and Determinants of Fertilizer Use in Sub- Saharan Africa by Anwar Naseem and Valerie Kelly.
	Productivity and Access to Food, by T.S. Jayne and Stephen Jones. 1996. 40 pp. \$7.00 (CDIE reference	IDWP 74	1999. 31 pp. \$7.00 (CDIE reference PN-ACE-290) Effects of Cash Crop Production on Food Crop
	PN-ABY-547)	1577 74	Productivity in Zimbabwe: Synergies Or Trade-offs? by
IDWP 57	An Economic and Institutional Analysis of Maize Research in Kenya, by Daniel David Karanja. 1996. 24		Jones Govereh and T.S. Jayne. 1999. 23 pp. \$7.00 (CDIE reference PN-ACF-371)
IDWD 50	pp. \$7.00 (CDIE reference PN-ABY-548)	IDWP 75	Workshop on Agricultural Transformation in Africa: Abidjan, Cote d'Ivoire, September 26-29, 1995 by
ייייי אב אאחו	Fighting an Uphill Battle: Population Pressure and Declining Land Productivity in Rwanda by Daniel C. Clay.		Moussa Batchily Ba, John M. Staatz, Laura Farrelly,
	1996. 28 pp. \$7.00 (CDIE reference PN-ABM-627)		Youssouf Camara, and Georges Dimithè. 1999. 51 pp. \$7.00 (CDIE reference PN-ACF-624)
			,

IDWP 75F	Atelier Sur la Transformation de l'Agriculture en Afrique, by Moussa Batchily Ba, John M. Staatz, Laura Farrelly, Youssouf Camara, et Georges Dimithe. 1999. 48 pp. \$7.00 (CDIE reference PN-ACF-390) Green Revolution Technology Takes Root in Africa by Julie A. Howard, Valerie Kelly, Julie Stepanek, Eric W. Crawford, Mulat Demeke, and Mywish Maredia. 1999. 66 pp. \$9.00 (CDIE reference PN-ACF-370)
IDWP 77	Statistical Annex and Copies of Questionnaire (CDIE reference PN-ACF-623) Increasing Seed System Efficiency in Africa: Concepts, Strategies and Issues by Mywish Maredia, Julie Howard, and Duncan Boughton, with Anwar Naseem, Mariah Wanzala and Kei Kajisa. 1999. 60 pp. \$7.00 (CDIE
IDWP 78	reference PN-ACG-551) Food Markets, Policy, and Technology: The Case of Honduran Dry Beans by Pedro V. Martel, Ribhard Bernsten, and Michael T. Weber. 2000. 39 pp. \$7.00
IDWP 79	(CDIE reference PN-ACH-614) Linkages Between Agricultural Growth and Improved Child Nutrition in Mali by James Tefft, Christopher Penders, Valerie Kelly, John M. Staatz, Mbaye Yade and Victoria Wise, with the participation of Modibo Diarra Isaac Niambélé, Keffing Cissoko and Modibo Kamaté.
IDWP 80	2000. 50 pp. \$7.00 (CDIE reference PN-ACM-467) Trading Out of Poverty: WTO Agreements and the West African Agriculture by Kofi Nouve, John Staatz, David Schweikardt, and Mbaye Yade. 2002. 36 pp. \$7.00
IDWP 81	(CDIE reference PN-ACR-046) Title II Food Aid and Agricultural Development in Sub- Saharan Africa: Towards a Principled Argument for When, and When Not, to Monetize by David Tschirley and Julie Howard. 2003. 30 pp. \$7.00 (CDIE reference pending)
	* Also published by A.I.D./Washington

Mail your marked form (via mail or fax) to:

MSU Bulletin Office

10-B Agriculture Hall

Michigan State University

East Lansing, MI 48824-1039

Fax: (517) 353-7168

Phone: (517) 355-0240

E-mail:

distbulk@msue.msu.edu

ORDER FORM for Papers Available from MSU

Required with all charge card orders: Check one: _____ VISA ____MasterCard Signature: _____ Expiration Date: Daytime Phone Number: () SHIP TO: Name: _ Address: Domestic orders totaling \$100 or more can be billed by MSU. Institutions and firms should use their official purchase order. All other orders, including foreign orders, must be pre-paid. Mark each choice with the quantity needed and enter total charges. IDP 13 \$11.00 IDWP 45 \$7.00 _IDWP 63 \$7.00 IDP 14 \$7.00 __IDWP 46 \$7.00 IDWP 64 \$7.00 ___IDWP 47 \$7.00 _IDP 14F \$7.00 ____IDWP 65 \$15.00 IDP 15 \$9.00 IDWP 48 \$7.00 IDWP 66 \$7.00 ____IDWP 67 \$9.00 ____IDWP 49 \$9.00 _IDP 16 \$7.00 ____IDWP 49F \$9.00 ____IDWP 68 \$7.00 IDP 17 \$11.00 ____IDWP 50 \$7.00 ____IDWP 69 \$11.00 IDP 18 \$7.00 ____IDP 19 \$9.00 ____IDWP 51 \$7.00 ____IDWP 70 \$11.00 _IDP 20 \$13.00 _IDWP 52 \$9.00 _IDWP 71 \$7.00 ____IDWP 53 \$7.00 ____IDWP 72 \$7.00 _IDP 21 \$11.00 ____IDWP 54 \$13.00 _IDP 22 \$7.00 ____IDWP 73 \$7.00 __IDP 23 \$9.00 ____IDWP 55 \$9.00 ____IDWP 74 \$7.00 ____IDWP 56 \$7.00 ____IDWP 75 \$7.00 IDP 24 \$7.00 ___IDWP 57 \$7.00 _IDWP 39/1 \$11.00 ____IDWP 75F \$7.00 ____IDWP 76 \$9.00 ____IDWP 58 \$7.00 _IDWP 39/2 \$9.00 ____IDWP 59 \$7.00 ____IDWP 77 \$7.00 _IDWP 40 \$11.00 ___IDWP 78 \$7.00 ____IDWP 60 \$7.00 IDWP 41 \$11.00 IDWP 79 \$7.00 IDWP 42 \$7.00 IDWP 61 \$7.00 IDWP 80 \$7.00 _IDWP 43 \$7.00 ____IDWP 62 \$9.00 IDWP 81 \$7.00 _IDWP 44 \$11.00 Sub-Total 20% (foreign orders, surface mail) International Airmail postage (call or e-mail for rates) **Total Amount**

The MSU International Development Papers published before 1993 (IDP numbers 1-11, IDWP numbers 1-38, and RP numbers 1-31) may be obtained through USAID's Center for Development Information and Evaluation (CDIE) and are not available from the MSU Bulletin Office.

How to Order MSU International Development Papers from USAID:

The MSU International Development Papers published before 1993 (IDP numbers 1-11, IDWP numbers 1-38, and RP numbers 1-31) may be obtained **only** through USAID's Center for Development Information and Evaluation (CDIE).

The CDIE reference numbers are shown on the following list. Document identification necessary to order the full document in paper or microfiche form from the USAID Development Experience Clearinghouse (DEC) is included with the citations.

If you would like to order any of the pre-1993 IDP's, IDWP's or RP's, please do not request them from MSU, but send your request--with the correct CDIE reference number--directly to the DEC:

Mail: USAID Development Experience Clearinghouse

1611 North Kent Street, Suite 200

Arlington, VA 22209-2111 USA

Electronic:

Web site: http://www.dec.org

Email address: docorder@dec.cdie.org

Telephone: +1 703-351-4006

Fax: +1 703-351-4039

If you cannot provide the CDIE reference number for the publication you wish to order, contact the USAID Library, who will supply you with the complete order information:

Telephone: +1 202-712-0579 Fax: +1 202-216-3515

Prices

Documents are provided to USAID employees without charge. Others are required to pay reproduction and mailing/handling costs. Current prices may be obtained by contacting the Document Distribution Unit (docorder@dec.cdie.org) or by searching the Development Experience System (DEXS) available through the DEC's web site (http://www.dec.org). A limited number of microfiche copies are provided without charge to LDC institutions.

Exchange programs

CDIE has established reciprocal agreements with selected development organizations who provide documents or other information resources to CDIE in exchange for distribution of CDIE documents or information. The materials received as a result of these exchange agreements are located in CDIE.

Deposit accounts

Deposit accounts may be established by USAID contractors and other users to facilitate the payment for documents ordered.

Available in A.I.D.'s Development Information System (CDIE)

MSU INTERNATIONAL DEVELOPMENT PAPERS		IDWP 5	Microcomputers and Programmable Calculators for Agricultural Research in Developing Countries by
<i>Afric</i> Bake	earch on Agricultural Development in Sub-Saharan ea: A Critical Survey by Carl K. Eicher and Doyle C. er. 1982. 346 pp. (CDIE reference PN-AAL-692)	IDWP 6	Michael T. Weber, James Pease, Warren Vincent, Eric W. Crawford, and Thomas Stilwell. 1983. 113 pp. (CDIE reference PN-AAN-441) Periodicals for Microcomputers: An Annotated
Agric	de Critique de la Recherche sur la Developpement cole en Afrique Subsaharienne par Carl K. Eicher et le C. Baker. 1982. 345 pp. (CDIE reference PN-		Bibliography by Thomas Stilwell. 1983. 70 pp. (CDIE reference PN-AAN-443)
IDP 2 A Sir	A- 840) mulation Study of Constraints on Traditional Farming tems in Northern Nigeria by Eric W. Crawford. 1982.	IDVVP 7	Employment and Housing in Lima, Peru by Paul Strassmann. 1983. 96 pp. (CDIE reference PN-AAN- 396)
136 j IDP 3 <i>Fam</i>	pp. (CDIE reference PN-AAP-677) ning Systems Research in Eastern Africa: The	IDWP 8	Faire Face a la Crise Alimentaire de l'Afrique by Carl K. Eicher. 1983. 29 pp. (CDIE reference PN-AAN-444) Software Directories for Microcomputers: An Annotated
Rese	erience of CIMMYT and Some National Agricultural earch Services, 1976-81 by M.P. Collinson. 1982. p. (CDIE reference PN-AAM-826)		Bibliography by Thomas C. Stilwell. 1983. 14 pp. (CDIE reference PN-AAN-442)
IDP 4 Anim Ecor	nal Traction in Eastern Upper Volta: A Technical, nomic and Institutional Analysis by Vincent Barrett,	IDWP 10	Instructional Aids for Teaching How to Use the TI-59 Programmable Calculator by Ralph E. Hepp. 1983. 133 pp. (CDIE reference PN-AAP-133)
	gory Lassiter, David Wilcock, Doyle Baker, and Eric wford. 1982. 132 pp. (CDIE reference PN-AAM-	IDWP 11	Programmable Calculator (TI-59) Programs for Marketing and Price Analysis in Third World Countries by Michael
IDP 5 Social Prod Agric	io-Economic Determinants of Food Consumption and duction in Rural Sierra Leone: Application of an cultural Household Model with Several Commodities ohn Strauss. 1983. 91 pp. (CDIE reference PN-	IDWP 12	L. Morris and Michael T. Weber. 1983. 105 pp. (CDIE reference PN-AAP-134) An Annotated Directory of Statistical and Related Microcomputer Software for Socioeconomic Data
IDP 6 Appl	I-031) lications of Decision Theory and the Measurement of udes Towards Risk in Farm Management Research		Analysis by Valerie Kelly, Robert D. Stevens, Thomas Stilwell and Michael T. Weber. 1983. 165 pp. (CDIE reference PN-AAP-135)
<i>in Inc</i> Fleis	dustrialized and Third World Settings by Beverly sher and Lindon J. Robison. 1985. 105 pp. (CDIE rence PN-AAU-740)	IDWP 13	Guidelines for Selection of Microcomputer Hardware by Chris Wolf. 1983. 90 pp. (CDIE reference PN-AAR-106)
IDP 7 Priva in Fo Timn	ate Decisions and Public Policy: The Price Dilemma ood Systems in Developing Countries by Peter mer. 1986. 58 pp. (CDIE reference PN-AAZ-091)	IDWP 14	User's Guide to BENCOS A SuperCalc Template for Benefit-Cost Analysis by Eric W. Crawford, Ting-Ing Ho and A. Allan Schmid. 1984. 35 pp. (CDIE reference PN-AAQ-682)
Findi 1987	Marketing in Senegal River Valley: Research lings and Policy Reform Options by Michael L. Morris. 7. 89 pp. (CDIE reference PN-AAZ-092) all Scale Industries in Developing Countries:	IDWP 15	An Evaluation of Selected Microcomputer Statistical Programs by James W. Pease and Raoul Lepage with Valerie Kelly, Rita Laker-Ojok, Brian Thelen, and Paul
Liedh	pirical Evidence and Policy Implications by Carl holm and Donald Mead. 1987. 141 pp. (CDIE rence PN-AAX-734)	IDWP 16	Wolberg. 1984. 187 pp. (CDIE reference PN-AAQ-683) Small Enterprises in Egypt: A study of Two
IDP 10 Main Agric	ntaining the Momentum in Post-Green Revolution culture: A Micro-Level Perspective from Asia by ex Byerlee. 1987. 57 pp. (CDIE reference PN-AAZ-		Governorates by Stephen Davies, James Seale, Donald C. Mead, Mahmoud Badr, Nadia El Sheikh and Abdel Rahman Saidi. 1984. 187 pp. (CDIE reference PN-AAU-610)
IDP 11 <i>The Dimb</i>	Economics of Smallholder Maize Production in babwe: Implications for Food Security by David D.	IDWP 17	Microcomputer Statistical Packages for Agricultural Research by Thomas C. Stilwell. 1984. 23 pp. (CDIE reference PN-AAZ-516)
549) WORKING PAPERS	rbach. 1989. 100 pp. (CDIE reference PN-ABD-	IDWP 18	An Annotated Directory of Citation Database, Educational, System Diagnostics and Other Miscellaneous Microcomputer Software of Potential Use
IDWP 1 Farm	ning Systems Research (FSR) in Honduras, 1977-81:		to Agricultural Scientists in Developing Countries by Thomas C. Stilwell and P. Jordan Smith. 1984. 34 pp. (CDIE reference PN-AAZ-523)
Cont	ase Study by Daniel Galt, Alvaro Diaz, Mario treras, Frank Peairs, Joshua Posner, and Franklin ales. 1982. 48 pp. (CDIE reference PN-AAM-827)	IDWP 19	Irrigation in Southern Africa: An Annotated Bibliography by Amalia Rinaldi. 1985. 60 pp. (CDIE reference PN-
Oriei Perfo Politi	dit Agricole et Credit Informal dans la Region ntale de Haute-Volta: Analyse Economique, ormance Institutionnelle et Implications en Matiere de tique de Developpement Agricole by Edouard K.	IDWP 20	AAZ-524) A Microcomputer Based Planning and Budgeting System for Agricultural Research Programs by Daniel C. Goodman, Jr., Thomas C. Stilwell and P. Jordan Smith. 1985. 75 pp. (CDIE reference PN-AAZ-525)
IDWP 3 Emp Cost	soba. 1982. 125 pp. (CDIE reference PN-AAZ-527) sloyment and Construction: Multicountry Estimates of ts and Substitutions Elasticities for Small Dwellings V.P. Strassmann. 1982. 42 pp. (CDIE reference)		Periodicals for Microcomputers: An Annotated Bibliography, Second Edition by Thomas C. Stilwell. 1985. 89 pp. (CDIE reference PN-AAZ-526)
PN-A IDWP 4 Sub-	AAM-455) -Contracting in Rural Areas of Thailand by Donald C. d. 1982. 53 pp. (CDIE reference PN-AAN-192)	IDWP 22	Software Directories for Microcomputers: An Annotated Bibliography, Second Edition by Thomas C. Stilwell. 1985. 21 pp. (CDIE reference PN-AAZ-528)

IDWP 23	A diagnostic Perspective Assessment of the Production and Marketing System for Mangoes in the Eastern Caribbean by Alan Hrapsky with Michael Weber and	RP 4	Cereals Marketing in the Senegal River Valley by Michael L. Morris. 1987. 126 pp. (CDIE reference PN-AAZ-120)
IDWD 24	Harold Riley. 1985. 106 pp. (CDIE reference PN-AAZ-529)	RP 5	The Food Security Equation in Southern Africa by Mandivamba Rukuni and Carl K. Eicher. 1987. 32 pp.
IDWP 24	Subcontracting Systems and Assistance Programs: Opportunities for Intervention by Donald C. Mead. 1985. 32 pp. (CDIE reference PN-AAZ-943)	RP 6	Formulation of Farmer Recommendations by Eric
IDWP 25	Small Scale Enterprise Credit Schemes: Administrative Costs and the Role of Inventory Norms by Carl Liedholm. 1985. 23 pp. (CDIE reference PN-AAU-615)	RP 6F	Crawford and Mulumba Kamuanga. 1988. 41 pp. (CDIE reference PN-AAZ-370) L'Analyse Economiques des Essais Agronomiques pour
IDWP 26	Subsector Analysis: Its Nature, Conduct and Potential Contribution to Small Enterprise Development by James J. Boomgard, Stephen P. Davies, Steve Haggblade and		la Formulation des Recommandations aux Paysans par Eric Crawford et Mulumba Kamuanga. 1987. 33 pp. (CDIE reference PN-AAZ-122)
IDWP 27	Donald Mead. 1986. 57 pp. (CDIE reference PN-AAZ-101)	RP 7	
IDWP 27	The Effect of Policy and Policy Reforms on Non- Agricultural Enterprises and Employment in Developing Countries: A Review of Past Experiences by Steve		Eric Crawford. 1987. 36 pp. (CDIE reference PN-AAZ-123)
IDWP 28	Haggblade, Carl Liedholm, and Donald C. Mead. 1986. 133 pp. (CDIE reference PN-AAV-001) Rural Small Scale Enterprises in Zambia: Results of a	RP 8	A Field Study of Fertilizer Distribution and Use in Senegal, 1984: Summary Report by Eric Crawford and Valerie Kelly. 1987. 32 pp. (CDIE reference PN-AAZ-
IDWP 29	1985 Country-Wide Survey by John T. Milimo and Yacob Fisseha. 1986. 76 pp. (CDIE reference PN-AAZ-102) Fundamentals of Price Analysis in Developing Countries'	RP 8F	Sénégal, 1984: Résumé Analytique par Eric Crawford et
	Food Systems: A Training Manual to Accompany the Microcomputer Software Program 'MSTAT' by Stephen Goetz and Michael T. Weber. 1986. 148 pp. (CDIE	RP 9	Valerie Kelly. 1988. 43 pp. (CDIE reference PN-ABC- 173) Improving Food Marketing Systems in Developing
IDWP 30	reference PN-AAZ-103) Rapid Reconnaissance Guidelines for Agricultural Marketing and Food System Research in Developing		Countries: Experiences from Latin America by Kelly Harrison, Donald Henley, Harold Riley and James Shaffer. 1987. 135 pp. (CDIE reference PN-AAZ-125)
IDWP 31	Countries by John S. Holtzman. 1986. 75 pp. (CDIE reference PN-AAZ-104) Contract Farming and Its Effect on Small Farmers in Less	RP 10	
IDWP 32	Developed Countries by Nicholas William Minot. 1986. 86 pp. (CDIE reference PN-AAZ-105) Food Security Policy and the Competitiveness of	RP 10F	126)
15111 02	Agriculture in the Sahel: A Summary of the "Beyond Mindelo" Seminar by Thomas S. Jayne and Nicholas Minot. 1989. 27 pp. (CDIE reference PN-ABF-570)	DD 11	Sénégalais par Mark Newman, Eric Crawford et Jacques Faye. 1987. 37 pp. (CDIE reference PN-AAZ-127) A Field Study of Fertilizer Distribution and Use in
IDWP 33	Small Scale Manufacturing Growth in Africa: Initial Evidence by Carl Liedholm and Joan Parket. 1989. 18 pp. (CDIE reference PN-ABB-945)	NF 11	Senegal, 1984: Final Report by Eric Crawford, Curtis Jolly, Valerie Kelly, Philippe Lambrecht, Makhona Mbaye, and Matar Gaye. 1987. 106 pp. (CDIE
IDWP 34	Food Security and Economic Growth in the Sahel: A Summary of the September 1989 Cereals Workshop by Victoire C. D'Agostino and John M. Staatz. 1989. 44 pp.	RP 11F	reference PN-AAZ-128)
IDWP 35	(CDIE reference PN-ABD-956) User's Manual for the SADCC Cereals Trade Database Compiled by the University of Zimbabwe and Michigan		Jolly, Valerie Kelly, Philippe Lambrecht, Makhona Mbaye, et Matar Gaye. 1987. 106 pp. (CDIE reference
IDWD 26	State University by David Kingsbury. 1989. 44 pp. (CDIE reference PN-ABF-378)	RP 12	PN-ABC-173) Private and Public Sectors in Developing Country Grain Markets: Organization Issues and Options in Senegal by
IDWP 36	Managing Food Security Action Programs in Botswana by Sisay Asefa. 1989. 36 pp. (CDIE reference PN- ABF-377)	RP 13	Mark D. Newman, P. Alassane Sow, and Ousseynou NDoye. 1987. 14 pp. (CDIE reference PN-AAZ-129) Agricultural Research and Extension in Francophone
IDWP 37	User's Guide to BENCOS Lotus 1-2-3 Templates for Benefit-Cost Analysis by Eric Crawford and A. Allan Schmid. 1990. 23 pp. (CDIE reference PN-ABF-530)		West Africa: The Senegal Experience by R. James Bingen and Jacques Faye. 1987. 23 pp. (CDIE reference PN-AAV-929)
IDWP 38	Research Methods in the MSU Food Security in Africa Project: Conceptualizing and Implementing Policy Relevant Studies by James F. Tefft with Michael T.	RP 13F	La Liaison Recherche-Developpement en Afrique de l'Ouest Francophone: L'Experience du Sénégal par James Bingen et Jacques Faye. 1987. 32 pp. (CDIE
	Weber and John M. Staatz. 1990. 128 pp. (CDIE reference PN-ABU-249)	RP 14	reference PN-AAZ-130) Grain Marketing in Senegal's Peanut Basin: 1984/85 Situation and Issues by Mark D. Newman. 1987. 16 pp.
REPRINT PAPERS		RP 15	(CDIE reference PN-AAZ-131) Tradeoffs between Domestic and Imported Cereals in Senegal: A Marketing Systems Perspective by Mark D.
	The Private Sector Connection to Development by Carl Liedholm. 1986. 19 pp. (CDIE reference PN-AAW-353)	RP 15F	Newman, Ousseynou NDoye, and P. Alassane Sow. 1987. 41 pp. (CDIE reference PN-AAZ-372) Céréales Locales et Céréales Importées au Sénégal: La
RP 2	Development in Third World Countries by James D. Shaffer with Michael Weber, Harold Riley and John	101	Politique Alimentaire a Partier Systemes de Commercialisation par Mark D. Newman, Ousseynou NDoye, et P. Alassane Sow. 1987. 48 pp. (CDIE
RP 3	Staatz. 1987. 21 pp. (CDIE reference PN-AAV-230) Famine Prevention in Africa: The Long View by Carl K. Eicher. 1987. 18 pp. (CDIE reference PN-AAZ-119)		reference PN-ABC-326)

RP 16	An Orientation to Production Systems Research in		Sow, and Ousseynou NDoye. 1988. 24 pp. (CDIE
	Senegal by R. James Bingen. 1987. 88 pp. (CDIE reference PN-AAZ-373)	RP 25F	reference PN-ABC-160) Etude sur la Commercialisation des Céréales dans la
RP 16F	Orientation de la Recherche sur les Systemes de	10 201	Région du Fleuve Sénégal: Méthodologie par Michael
	Productions au Sénégal par R. James Bingen. 1987. 94 pp. (CDIE reference PN-AAZ-374)	RP 26	Morris. 1988. 48 pp. (CDIE reference PN-ABC-172) The Regulation and Organization of Cereal Markets in
RP 17	A Contribution to Agronomic Knowledge of the Lower		Senegal: Report on the Marketing Campaigns of
	Casamance (Bibliographical Synthesis) by J.L. Posner. 1988. 47 pp. (CDIE reference PN-AAZ-375)		1983/84 and 1984/85 by P. Alassane Sow and Mark D. Newman. 1988. 29 pp. (CDIE reference PN-ABC-165)
RP 17F	Contribution a la Connaissance Agronomique de la	RP 26F	La Réglementation et l'Organisation des Marchés
	Basse Casamance (Synthese Biblographique) par J.L. Posner. 1988. 47 pp. (CDIE reference PN-ABC-167)		Céréaliers au Sénégal: Situation des Campagnes des Commercialisation 1983/84 et 1984/85 par P. Alassane
RP 18	Acquisition and Use of Agricultural Inputs in the Context		Sow et Mark D. Newman. 1988. 35 pp. (CDIE
	of Senegal's New Agricultural Policy: The Implications of Farmers' Attitudes and Input Purchasing Behavior for the	RP 27	reference PN-ABC-166) Farm Level Cereal Situation in Lower Casamance:
	Design of Agricultural Policy and Research Programs by Valerie Auserehl Kelly. 1988. 30 pp. (CDIE reference		Results of a Field Study by C.M. Jolly, M. Kamuanga, S.
	PN-AAZ-376)		Sall, and J.L. Posner. 1988. 35 pp. (CDIE reference PN-ABC-157)
RP 18F	Acquisition et Utilisation d'Intrants Agricoles dans le Context de la Nouvelle Politique Agricole du Sénégal:	RP 27F	Situation Céréaliere en Milieu Paysan en Basse Casamance: Résultats d'une Enquête de Terrain par
	Implications des Attitudes et du Comportement d'Achat		C.M. Jolly, M. Kamuanga, S. Sall, et J.L. Posner. 1988.
	d'Intrants des Exploitants pour l'Elaboration d'une Politique Agricole et de Programmes de Recherches par	RP 28F	41 pp. (CDIE reference PN-ABC-158) Budgets de Culture au Sénégal par Frédéric Martin.
	Valerie Auserehl Kelly. 1988. 35 pp. (CDIE reference		1988. 54 pp. (CDIE reference PN-ABC-168)
RP 19	PN-AAZ-377) Farmers' Demand for Fertilizer in the Context of		Annexe 1 Budgets de Culture et Analyse des Marges dans le Bassin Arachidier. 1988. 134 pp. (CDIE
	Senegal's New Agricultural Policy: A Study of Factors		reference PN-ABC-169)
	Influencing Farmers' Fertilizer Purchasing Decisions by Valerie Auserehl Kelly. 1988. 47 pp. (CDIE reference		Annexe 2 Budgets de Culture et Analyse des Marges au Sénégal Oriental et en Casamance. 1988. 204 pp.
RP 19F	PN-AAZ-378)		(CDIE reference PN-ABC-170)
KF 19F	Demande d'Engrais de la Part des Exploitants dans les Contexte de la Nouvelle Politique Agricole au Sénégal:		Annexe 3 Budgets de Culture et Analyse des Marges dans la Vallée du Fleuve Sénégal. 1988. 214 pp. (CDIE
	Une Etude des Facteurs Influencant les Decisions d'Achat d'Engrais Prises par les Exploitants par Valerie	RP 29	reference PN-ABC-171) Agricultural Development and Policy in Senegal:
	Auserehl Kelly. 1988. 58 pp. (CDIE reference PN-AAZ-	N 29	Annotated Bibliography of Recent Studies, 1983-89 by
RP 20	379) Production Systems in the Lower Casamance and		Eric Crawford, R. James Bingen, and Malcolm Versel. 1990. 254 pp. (CDIE reference PN-ABE-271)
0	Farmer Strategies in Response to Rainfall Deficits by J.L.	RP 30	Lowland Cropping Systems in the Lower Casamance of
	Posner, M. Kamuanga, and S. Sall. 1988. 33 pp. (CDIE reference PN-ABC-162)		Senegal: Results of Four Years of Agronomic Research (1982-1985) by Joshua Posner, Mulumba Kamuanga,
RP 20F	Les Systemes de Production en Basse Casamance et les		and Mamadou Lo. 1990. 130 pp. (CDIE reference PN-
	Stratégies Paysannes Face du Deficit Pluviométrique par J.L. Posner, M. Kamuanga, et S. Sall. 1988. 33 pp.	RP 31	ABU-251) Farming Systems Research in Southern Senegal: The
RP 21	(CDIE reference PN-ABC-163) Informing Food Security Decisions in Africa: Empirical		Djibelor Experience (1982-1986) by Mulumba Kamuanga
NF 21	Analysis and Policy Dialogue by Michael T. Weber, John		and Joshua L. Posner. 1992. 57 pp. (CDIE reference PN-ABT-624)
	M. Staatz, John S. Holtzman, Eric W. Crawford, and Richard H. Bernsten. 1989. 11 pp. (CDIE reference		
55.515	PN-ABE-627)		
RP 21F	Comment Informer les Decisions Traitant de la Sécurité Alimentaire en Afrique: Analyses Empiriques et Dialogue		
	Politique par Michael T. Weber, John M. Staatz, John S.		
	Holtzman, Eric W. Crawford, et Richard H. Bernsten. 1989. 13 pp. (CDIE reference PN-ABD-104)		
RP 22	The Creation and Establishment of Production Systems Research in a National Agricultural Research Institute:		
	The Senegal Experience by Jacques Faye, James		
	Bingen, and Etienne Landais. 1988. 25 pp. (CDIE reference PN-ABC-161)		
RP 23	Foreign Trade of Agricultural Products and Inputs in		
	Senegal from 1975 to 1984 by Frederic Martin and Alioune Dieng. 1988. 45 pp. (CDIE reference PN-ABC-		
DD 005	164)		
RP 23F	Le Commerce Exterieur de Produits et d'Intrants Agricoles du Sénégal de 1975 a 1984 par Frederic Martin		
	et Alioune Dieng. 1990. 45 pp. (CDIE reference PN-		
RP 24	ABF-529) Regulatory Uncertainty and Government Objectives for		
	the Organization and Performance of Cereal Markets: The Case of Senegal by Mark D. Newman, P. Alassane		
	Sow, and Ousseynou NDoye. 1988. 24 pp. (CDIE		
RP 24F	reference PN-ABC-159) Incertitude Réglementaire, Objectifs Gouvernementaux,		
=	Organisation et Performances des Marchés Céréaliers:		
	Le Cas du Sénégal par Mark D. Newman, P. Alassane		