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Leveraging Food Security With Food Aid: The Role of Applied Policy Research

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ABSTRACT

The paper considers that food aid must not only contribute directly to food security; it must be used, wherever possible, to contribute to development. Food aid has now become a scarce resource; it must therefore be used to make a bigger impact on food and nutritional security through better management at the implementation level, donor level and through regional integration. The paper analyses on how far the role of food aid will be redefined in the new millenium.

Key Words: food aid, food security, indicators of food insecurity, participatory research, incentives, trade-offs, vulnerable population, applied policy research, leveraging

INTRODUCTION

The current numbers on global hunger and malnutrition are by now depressingly familiar; 800 million people do not have enough food to eat, one in three preschool children in sub-Saharan Africa is significantly underweight, and over two billion people world-wide are deficient in one or more micronutrients (ACC/SCN, 1993).

we now live in a time of smaller government in which food aid has become a scarce

resource that has alternative uses (USAID, 1995). This continuum of uses is characterized at its extremes by relief and development. More people must be made food secure with food aid than ever before. Food aid must not only contribute directly to food security; it must, whenever possible, be used to leverage it.

Food aid is already an important resource in trying to turn back the tide of malnutrition. How can that impact be enhanced in the short-run in general and in the long-run in particular? Part of the story rests in better management. There is no doubt that food aid can have a bigger impact on food security through better organisation at the implementing level, better coordination at the PVO and donor levels and through more regional integration. Part of the story rests on better information and analysis. Without good information, few sound decisions can be taken about investment alternatives. The longer decisions are made on an uninformed *ad hoc* basis, the longer the hunger and food insecurity persists.

This paper describes some ways in which applied policy research can contribute to improving the food security impact of food aid. The paper highlights some areas in which current research and analysis have given us some ideas on how to do better in this regard. The paper also highlights information and analysis bottlenecks that threaten to impede future attempts to leverage food security with food aid.

Finally, the paper argues that the policy research community cannot conduct business as usual, if it is to contribute significantly to relieving these bottlenecks.

WHAT HAS POLICY RESEARCH TOLD US ABOUT THE PROSPECTS FOR LEVERAGING FOOD SECURITY WITH FOOD AID?

The concept of *food insecurity* is centered on shortfalls of food today as well as the risk of shortfalls tomorrow. If *food aid policy* is to be linked to food security, its main objective should be to minimize the occurrence, severity and impact of several risks:

1. crop production (such as crop susceptibility to disease and drought).
2. food availability and price (such as rapidly rising prices).
3. employment and income (such as losing a job).
4. health (diseases such as diarrhoea).
5. security (such as civil unrest).

Applied research helped us to realize this in a number of ways by:

1. understanding how the poor cope with food insecurity, and suggesting ways of targeting and monitoring food aid impacts and
2. assessing the cost effectiveness of various food aid interventions and suggesting

ways of linking short- term and long-term food security strategies.

These topics are described in greater detail.

How the Poor Cope with Food Insecurity

Research confirms that even in areas of desperate poverty, some households are much better able to cope with food crises than others. In fact, households cope by linking long-run and short-run strategies in a household level analogy of the relief to development continuum. The international Food Policy Research Institute (IFPRI) research, for example, shows that lending small amounts of money to the poor to support them to maintain consumption in the short-run, allows them to preserve their assets for production when things get better. We call this *managing consumption for production*. When the ability of some households to cope is ignored, however, many relief interventions cannot identify those least able to cope. Hence, they spread resources too thinly, sometimes missing the most vulnerable (Zeller, 1994).

Other behavioural responses to food insecurity also provide evidence that there are a number of coping mechanisms already in place at the time that food aid projects are implemented. These responses include income pooling, crop diversification, and asset accumulation. There is the potential for food aid projects, either short-term or long-term, to be disruptive to these indigenous coping mechanisms, if not implemented in an appropriate manner or time frame. Such disruption is often referred to as the *disincentive problem of food aid*, or the "crowding out" of appropriate coping behaviour. Food aid projects should be wary of leading to the disincentive to work, produce or potential for altering local consumption patterns. Food aid, "must recognize the existence of a household-based coping process. It must also recognize the dynamics of the process – the various phases of its development, factors that cause and condition these phases and the context within which the process evolves. Frequent public responses to emergency situation, simply reveal a lack of proper understanding of the time path of coping process" (Teklu, 1992: 257). The role of food aid should be to strengthen or complement coping strategies that already exist.

How to Target Food Aid

The targeting of food aid can take place at the district level or at the household level. At the district level, IFPRI has combined geographic information system (GIS), analysis and classification, and regression tree (CART) analysis to identify and map indicators of food insecurity (Webb *et al*, 1994). To conceptualize this approach, it is useful to think of a medical model for a triage system that sets priorities for intervention. In fact, the model is adapted from a model developed in California by emergency room doctors. The California model assesses who is most at risk through a series of indicators such as age, weight and

blood pressure. These indicators determine the likelihood of survival and suggest a course of treatment.

Research using these techniques was conducted by IFPRI for a project in Ethiopia as an outgrowth of the Institute's famine research. The research design attempts to pinpoint areas in Ethiopia that are vulnerable to food insecurity and to suggest appropriate interventions. In collaboration with the Ethiopian early warning and statistical services, the US Geological Survey and USAID's Famine Early Warning System, IFPRI has developed a way to structure districtlevel data to develop indicators that classify rural populations, in terms of their potential need for food assistance.

Famine vulnerability is not solely due to supply collapse. rather, it is the outcome of interacting processes of food supply, market performance and the purchasing power of the poor. Since vulnerability has no single defining characteristic, indicators of vulnerability are typically constructed from a mix of proxy variables. how is the core group of indicators chosen, that best explains the vulnerability? As a complement to the process whereby indicators are identified for a single location by local experts, the identification of indicators by the CART model is a useful refinement of national-level indicator selection methods. The CART analysis chooses the set of indicators that best explain the variation in our measure of vulnerability - the number of "people in need", as defined by the Ethiopian Relief and Rehabilitation Commission (RRC). The indicators found to be most useful in explaining the percentage of "people in need" across space and time were:

1. sharp declines in satellite vegetation indexes (NDVI),
2. low terms of trade between maize and sheep (high relative price of maize),
3. high variation of dry season vegetation index,
4. hectares *per capita* under annual crops and
5. small average household size.

These variables provide powerful insights into the distribution of need. This analysis shows that vulnerability is best explained in terms of composite groupings of indicators that vary considerably, both in geographic and temporal terms.

Are these areas of vulnerability being served by programmes of action such as public works programmes? Not necessarily. Many of the current food security programmes in Ethiopia are not active in areas most vulnerable to famine. This is critical information.

Targeting the poor and food insecure is not often an explicit policy in design of public works, but IFPRI studies in sub-Saharan Africa indicate that they show some promise in this regard (von Braun, Teklu, and Webb, 1992). Examples:

1. While employment is often open to working adults, the programmes self-screen

workers, largely from households who have a low and variable income and asset base. Households with low asset holdings (for example, livestock in the context of Botswana, and access to land in the case of Kenya) and poor access to income transfers (in the form of gifts and cash transfers), are more likely to participate in these schemes. Within these households, adults with low educational attainment are likely to participate.

2. The extent of female participation varies across programmes and countries. Female participation, especially among single adults, tends to be higher in areas where men have better alternative wage employment opportunities. In poorer areas, older women with children have a higher propensity to participate.
3. The poor, who are dependent on erratic farm income sources, earned considerably more income from public works than did non-poor households and relied more on public works to stabilize their short-term food security.
4. The evidence is weak as to how access to public works employment translates into increases in income and consumption among the poor. However, results from IFPRI case studies do show some improvement in the income and consumption levels of the poor, when they participate in public works programmes.
5. Access to public works has the potential to complement private coping mechanisms, such as access to informal credit markets. Studies from Ethiopia and Botswana show that access to public works serves as a collateral substitute for the poor.
6. These work schemes do reach only the poor with working adults. The destitute who typically do not have working adults, especially the female-headed households, are not captured in these schemes. Public works programmes have to complement other interventions in order to ensure that the destitute are assisted (Teklu, 1995).

The CART and GIS research in Ethiopia could help to target both food relief and development assistance, such as employmentbased public works programmes that yield longterm benefits, while alleviating shortterm food crises.

How to Monitor Food Aid Impacts

In directing food aid programmes to be more results-oriented, indicators of outputs need to be developed as a complement to the more straightforward input indicators, such as tons of food delivered and number of people receiving food aid.

IFPRI work with collaborators in India compared the performance of food insecurity indicators from conventional surveys, pared-down rapid surveys and participatory appraisal methods (Chung, Haddad, and Ramakrishna, 1994). In terms of their ability to track food insecurity, it was found that the rapid survey and participatory indicators performed as well as the more conventional survey indicators, but were easier to collect. In addition, the participatory methods proved more flexible than conventional survey

methods, more respectful of local knowledge, better for establishing rapport between investigators and villagers and more promising for nutrition education purposes.

The results from this study indicate that targeting with the indicators from the rapid surveys and participatory methods may be viable at the community, household and individual levels. Results indicate that village-level indicators were often the best indicators for identifying the food insecure. This study illustrates the potential for using household and individual-level indicators to rank villages according to their food insecurity status. The next step is to try the same ranking exercise with a much larger set of villages - ideally one that is more nationally representative.

Assessing the Cost-Effectiveness of Food Aid

Food aid is now a scarce resource that has alternative uses; food aid projects need to be subjected to more scrutiny in terms of cost-effectiveness. Research conducted at IFPRI has analyzed the cost-effectiveness of various income transfer programmes in Bangladesh (Ahmed, 1995). These programmes include the former Rural Rationing (RR) programme, the Vulnerable Group Development (VGD) programme, the Food for Work (FFW) and Cash for Work (CFW) programmes, the Rural Maintenance Programme (RMP) and the innovative Food for Education (FFE) pilot programme. Cost-effectiveness for each programme was measured by the cost of supplying US\$1 in income to a target household. Particular attention was paid to the performance of the two public works programmes, CFW and FFW. Under the CFW programme, it cost US\$1.3 to transfer US\$1 to the households. The FFW programme cost US\$2.5 to transfer income to the household, but dollar for dollar had a larger impact on food consumption. This result emphasizes that the choice of the food aid delivery system, will likely be driven by donor objectives. Additional policy considerations include the following:

1. Where food is transferred, wheat should be distributed rather than rice. Since wheat is an "inferior" grain in Bangladesh, it is "self-targeting" in the sense that only the poor will be willing to accept it. This makes wheat a preferred commodity for targeted food interventions in Bangladesh (other "inferior" grains can play this role in other societies).
2. Within households, individuals confronting the greatest nutritional risks require improved caring. The findings of IFPRI studies suggest that VGD, RMP and FFW programmes have been successful in significantly improving the household-level food security, but had little or no impact on the nutritional status of children within households. Currently, programmes aimed at targeting vulnerable individuals are less prominent and enjoy far less funding - about one-tenth the amount spent on income transfer programmes. An optimal programming mix should involve some combination of income targeting and attention to caring behaviour.
3. Targeted income transfers are an interim solution to the problem of ensuring household food security. A long-term view of food security improvement needs to

be established and institutionalized. Renewed focus on the acceleration of agricultural growth with sustainable technology, remains a precondition for improved household food security in the long-run. Otherwise, vulnerable households will continue to face employment, income, price and food availability risks (Ahmed, 1995).

How to Link Long-term and Short-run Strategies

Freedom from famine and hunger depends crucially on good governance; one which is accountable, non-discriminatory and participatory. In addition, the abolition of famine and hunger rests on both long-term strategies, such as investing in research to raise the productivity of agriculture (crops and livestock) and short-term strategies, such as designing safety nets for those who do not have access to resources or labour.

How do we link the long-term with the short-term strategies? We have already mentioned innovative informal rural finance schemes which allow consumption to be smoothed today in order to preserve assets for productive use tomorrow.

As already suggested, labour-intensive public works also exhibit potential in this regard. Public works can act as relief programmes that develop the community by building schools, clinics, roads, and shelter. Also as development programmes that, by acting as collateral for informal credit or by building environmentally friendly structures, are more sensitive to preventing the need for relief. To date, experience from sub-Saharan Africa is somewhat mixed. Some studies show that participation in public works is self-targeting and income-increasing. On the other hand, there is some unevenness in the participation and status of women as a result of the programmes. In addition, the programmes place heavy demands on institutional capacity, especially at the regional level (IDS Bulletin, 1994).

WHAT ARE THE INFORMATION AND ANALYTICAL BOTTLENECKS TO LEVERAGING FOOD SECURITY WITH FOOD AID?

Applied policy research has already given us some ideas about how to leverage food security through food aid. When we look more closely at the information and analytic requirements necessary to think differently and act differently, a number of gaps become apparent:

1. The need to locate and promulgate success stories from sub-Saharan Africa

In our attempts to find ways of leveraging food security with food aid, we must make sure that we are not re-inventing the wheel. There are food security success stories coming out of sub-Saharan Africa. They do not carry the journalistic impact of the failures, but they

should and if documented in a systematic but accessible way, they could. What makes one project work well, while a seemingly similar project does not?

In the nutrition planning field, tracer studies of this type, identify the management capacity of the programme staff as perhaps the key factor in project success. The analysis of success stories usually involves rounding up the usual suspects, Tamil Nadu, Botswana, Zimbabwe, Honduras and Maharashtra. Moreover, these success stories are often told by people based in Washington DC, New York, Geneva or Rome. We must provide more opportunities for those in the regions to tell their stories and for others, opportunities to listen and learn. Similarly, if a regional approach to food security is to be an important part of the success story in the Greater Horn, we need to learn from the experiences of the southern Africa Development Community (SADC) and the Club du Sahel.

2. The need to understand the inherent trade-offs in asking food aid to work for long-term food security

In some sense, we are asking food aid to do "double duty": in having a relief and a development focus, but we must understand that there are trade-offs involved. Often, there is an assumption that there are no trade-offs to this approach, either in theory or in practice. It is known that the pursuit of multiple objectives involves trade-offs and that sometimes efforts fall between cracks. Is linking food aid to food security a win-win situation? Not always. We have to ask two questions.

First, in attempting to make food aid have more of a development focus, does it lose its ability to have a relief focus? Consider the trade-offs inherent in the following situations:

- the difficulties of implementing food for work schemes, as opposed to basic feeding programmes.
- the need to monetize food aid despite the vulnerability of markets to production disincentives at certain times of the year.
- the difficulties of measuring the short-term impact of using food aid to improve agricultural practices.
- the potential quality risks of using labour-intensive public works to construct a health centre or a school.
- the dangers of reducing school performance through reduced teacher performance and increased class sizes through food for education programmes.
- delays in programme implementation due to the less top-down nature of development programmes.
- the danger of pulling food aid feeding away from the more vulnerable under five age group through school feeding programmes.

Second, in attempting to make food aid have more of a relief focus, does it lose its ability

to have a development focus? Consider:

- the trade-offs of using food aid to promote food production in low potential areas instead of high potential areas.
- the danger of making credit available to those who are especially vulnerable, but do not have enough time or opportunities to use it, and therefore end up in a worse position through failure to repay.

In short, we need to know more about the economic and political economy trade-offs inherent in the pursuit of the objectives of relief and development.

3. Is leverage best achieved within a programme or by a set of programmes?

Another important information and analytical gap to fill, is understanding when to try to make food aid work for food security within a single project, as opposed to within a portfolio of projects.

We know food aid is most effective when used in conjunction with other resources, but can single projects achieve this linkage? Evidence, scarce as it is, is mixed. Qualitative evaluations of the USAID-supported credit with nutrition education programme in Mali, for example, say "yes", linkage can be achieved within a single project, but quantitative evaluations of the same project are more circumspect (De Groote, 1994).

On the other hand, when is it best to embody the leverage process in a portfolio of projects? Note that the design of a portfolio approach may have especially large information, analytic and coordination requirements.

4. The need for research to focus on operational realities

There is a need for research to focus more on the operational realities of development. This requires researchers to focus less on links between abstract variables and more on: working more closely on a day-to-day basis with project management and: collecting information on programmable variables. This is rarely done. A recent World Bank report found that only 10 per cent of 93 nutrition programmes in Latin America were evaluated, and only three of these evaluations were judged to be of reasonable quality (Musgrove, 1993). Some researchers consider such evaluations to be beneath them. In truth, such evaluations may simply be beyond them. It takes first-rate research to unlock the impacts of project and programme design on food security.

5. The drive to more inclusive and participatory research

Whatever researchers do to address these questions, they will need to do it in a

participatory way. They will need to listen to the visions of the national governments, non-governmental organizations (NGOs), donors and most importantly, of the hungry themselves. Relevant research cannot be conducted without an appreciation of the everyday realities that the food insecure face.

The incentives to programme designers and implementors may seem underdeveloped when it comes to listening to the people themselves, but the payoffs can be large. A recent IFPRI study in Ethiopia shows that only 1% of all public works programme participants were consulted about the design of public works (Webb, Richardson, Seyoum, and Yohannes, 1994). While most public works projects in Ethiopia are based on soil conservation or reforestation, most participants desire public works that are related to health and sanitation, such as health clinic construction, the provision of piped water and the building of latrines.

6. The need to strengthen capacity to undertake analysis

Much of the applied research agenda described earlier can only be carried out if research and implementing institutions, such as those within the Greater Horn, are strengthened. There have been repeated calls for the strengthening of the Inter-Governmental Authority on Drought and Development (IGAD). national and district agencies need to be strengthened too. One important method of strengthening institutions is through conducting operational research side-by-side with researchers from the region. In Malawi and Ghana, IFPRI has a long-term commitment to doing just this, with policy analysts at Bunda College in Malawi and the National Development Planning Commission in Ghana. Similar commitments need to be shown to institutions such as IGAD. There remains a need to support regional bureaus in the RRC and other decentralized agencies for institutions in Ethiopia.

IS POLICY RESEARCH UP TO THE CHALLENGE OF MEETING THESE BOTTLENECKS?

It is not surprising that this paper would argue that, "yes", research is up to the challenge of meeting these bottlenecks. In truth, many of these gaps are eminently researchable. If the applied research community is to meet the challenge, there are, however, three important things it has to do differently:

1. The applied research community must make sure that research packs a punch outside the academic arena. This does not mean a backing off of the rigour of the research; rather it means, a realization that different problems call for different levels of analytical sophistication.
2. More attention needs to be paid to the research *process* in terms of capacity strengthening as well as to the research *outcome*: both are indicators of research

quality.

3. Applied research should be undertaken in a manner that builds up institutional memory. This again goes back to concerns about not learning from past work.

In short, research results have to be accurate, instrumental in building capacity, user-driven and linked by some institutional arrangement.

CONCLUSIONS

While economic growth continues to be crippled by structural food deficits, weak market infrastructure, inappropriate economic policies and armed conflict there will continue to be a role for food aid. However, food aid is becoming a scarce resource.

Now more than ever, food aid must:

1. not create disincentives to local production,
2. be combined with other development resources,
3. be well-targeted to the most vulnerable,
4. be culturally acceptable,
5. be demonstrably cost-effective and
6. work to make the vulnerable less vulnerable to future food insecurity.

It is clear that the role of food aid will be fundamentally redefined in the next decade. Crucial to this redefinition will be new ways of thinking about the coordination, management and institutional aspects of food aid; management and coordination feed on information. Better information and analysis - in terms of relevance, methods and process - is a cornerstone for this redefinition. New ways of conducting applied policy research must be combined with new ways of acting upon the information generated, if food aid is to work for lasting food security.

In his introductory comments at the World Bank's Hunger Conference in late 1993, Tony Hall told an allegorical story about how a fire only burns brightly if all its logs are placed together (Hall, 1993). If the logs are separated they most quickly burn out. Others continue to burn, but they do not generate much warmth or comfort. efforts on the managerial side and analytical sides need to work hand-in-hand to ensure that food aid is one means of leveraging, not undermining, food security, for long-term food security through food aid, to occur.

REFERENCES

- ACC/SCN (Administrative Committee on Coordination/Subcommittee on Nutrition, United Nations). 1993. *Second Report on the World Nutrition Situation*.

United Nations, New York.

- Ahmed, A. 1995. Cost-effectiveness of targeted food programs in Bangladesh. Paper presented at a USAID/IFPRI workshop on Making Food Aid Work for Long-Term Food Security, held on March 27-30 in Addis Ababa, Ethiopia.
- Chung, K., L. Haddad, and J. Ramakrishna. 1994. Alternative approaches to locating the food insecure: Evidence from South India. Report to USAID Office of Nutrition for IMPACT Project. International Food Policy Research Institute, Washington, D.C.
- De Groote, H. 1994. Credit with education for women in Mali: Impacts on income, food security, and nutrition. Report prepared for USAID. International Food Policy Research Institute, Washington, D.C.
- Hall, T. 1993. A vision for a hunger-free partnership. Comments presented at the World Bank's Proceedings of a Conference on Actions to Reduce Hunger Worldwide, held on November 30-December 1 in Washington, D.C.
- *IDS Bulletin*. 1994. Linking relief and development. 25 (4).
- Musgrove, P. 1993. Feeding Latin America's children. *The World Bank Research Observer* 8 (1).
- Teklu, T. 1992. Household responses to declining food entitlement: The experience in Western Sudan. *Quarterly Journal of International Agriculture*, 31 (3) .
- Teklu, T. 1995. Employment programs for food security in Sub-Saharan Africa. Paper presented at a USAID/IFPRI workshop on Making Food Aid Work for Long-Term Food Security, held on March 27-30 in Addis Ababa, Ethiopia.
- U.S.A.I.D. (United States Agency for International Development). 1995. Food aid and food security: USAID Policy Paper. Mimeo, Washington, D.C.
- von Braun, J., T. Teklu, and P. Webb. 1992. Labour-intensive public works for food security in Africa: Past experience and future potential. *International Labour Review*, 131 (1).
- Webb, P., E. Richardson, S. Seyoum, and Y. Yohannes. 1994. Vulnerability mapping and geographical targeting: An exploratory methodology applied to Ethiopia. Health and Human Resources Analysis for Africa Project. Report to USAID. International Food Policy Research Institute, Washington, D.C.
- Zeller, M. 1994. Determinants of credit rationing: A study of informal lenders and formal credit groups in Madagascar. *World Development*, 22 (12).

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