FOOD SECURITY IN AFRICA (931-1190):

A MID-TERM EVALUATION

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Figure 1: Organizational Chart of the Food Security for Africa Project 12
EXECUTIVE SUMMARY


1. Project Purpose: The Food Security in Africa Project (FSA) was designed to assist African countries in formulating alternative policies, institutions and management processes to deal with critical food security problems in ways that help achieve more reliable and productive food systems that benefit both producers and consumers. The project focuses on the dynamic interplay between institutions, technology and policy while attempting to generate new knowledge, operational approaches, and analytical methods to enhance the ability of governments to achieve their food security goals.

The FSA Project is being implemented by Michigan State University (MSU) under Cooperative Agreement No. DAN-1190-A-00-4092-00 (PACD 11/91). At the close of FY 87 a total of $4.87 million had been obligated to the project, with $2.6 million in core funding (contributed by AFR/TR/ARD and S&T/RD/RRD) and the remainder from U.S.A.I.D. mission "buy-ins" for research on country-specific food security issues in Zimbabwe, Mali, Senegal, Rwanda, and Somalia.

2. Purpose of evaluation, and methodology: The purpose of this interim evaluation was to review progress to date under the project and the cooperative agreement, and to make recommendations for any needed mid-course corrections. The evaluation team also expected to reassess the relevance of project objectives to the host countries and to U.S.A.I.D.'s larger development strategies, and to estimate both short-term effects and probabilities for longer-term and sustained project impact.

As recommended in the A.I.D. Evaluation Handbook (1987; 25), the interim evaluation team combined in-house expertise (two A.I.D./W. project staff recently assigned responsibilities for the project) with an external evaluator with widely recognized expertise in agricultural and rural development. The evaluation methodology was essentially a combination of literature and documentation review and interviews with project staff and key informants with in-depth knowledge of project activities and performance. These interviews were conducted in A.I.D./W., in East Lansing, and in the context of evaluation...
team field visits to two FSA activities in Zimbabwe and in Mali. The Zimbabwe visit was timed to coincide with the Third Annual Conference on Food Security Research in Southern Africa, sponsored by the University of Zimbabwe and the project, and this offered an excellent opportunity to interview a range of persons from different countries familiar with the project. In addition, those U.S.A.I.D.s with FSA activities not visited by members of the evaluation team were cabled an extensive list of questions concerning project activities and performance, and their responses have been incorporated into this evaluation report (see appendix 3).

3. Findings and conclusions; The basic conclusion of this evaluation report is that the project is successfully addressing its objectives in an efficient and cost-effective manner. Progress to date has been substantial, and prospects for longer-term and sustained project impact appear good. Specifically, project achievements include:

1.) substantial and generally good quality policy-relevant published output, including 52 working papers, 39 conference papers, and some methodological innovations that could eventually have broader applicability to other U.S.A.I.D. projects;

2.) significant achievements in training both donor and host country researchers to do food security research, with 36 trained host country counterparts and research associates, and 37 students who have received MS and Ph.D. degrees with some Food Security Core Staff orientation;

3.) clear (if qualitative) evidence of growing local institutional capacity to identify, analyze, and articulate food security problems and issues, and to develop appropriate policies and strategies towards attainment of national and regional food security goals.

The project is also credited by many as having encouraged important changes in attitude among host country government officials on the importance of this kind of policy research, and with fostering a greater appreciation of the relevance of systematic field-level data collection to macro-policy formulation and evaluation. While difficult to quantify, the evaluation team believes this may be one of the most significant long-term impacts of the project.
4. Recommendations: While recognizing that the Project has made important accomplishments, the evaluation team identified some concerns that should be addressed during the next four years of project life. Recommendations include;

1.) MSU project staff should give higher priority to the preparation of articles for refereed professional journals that draw upon the empirical findings and insights of the project, with greater emphasis on comparative and analytical themes. This could play an important role in focusing more of the attention, resources and expertise of the broader academic and development community on important food security issues in Africa;

2.) In collaboration with U.S.A.I.D./Harare and with their African colleagues, the Project should seriously consider exploring the feasibility of assigning a second faculty member to Southern Africa, to strengthen support to the SADCC region;

3.) greater efforts should be made to recruit more African graduate students to the project, and to assign more Food Security assistantships to the same; in addition supplementary in-country training schemes should be considered;

4.) more attention should be given to some additional food security issues of vital and urgent interest to A.I.D. and many African countries (e.g. managing food aid in the context of long-term food security needs; relationship between short-term policy reform and long-term agricultural and natural resource sustainability). The evaluation team notes that the project has been spending less money than originally anticipated, and while recognizing that this careful fiscal management should be applauded urges MSU to consider applying some existing resources to address these and other important issues;

5.) more emphasis should be placed on additional dissemination channels for project results (besides the Working Papers), such as the excellent annual Food Security conferences in Zimbabwe which bring together both researchers and policymakers. The project has demonstrated that such conferences can be very effective in a regional context, and the evaluation team in a related recommendation urges the Project to consider increasing regional focus in the Sahel, building on project accomplishments in Mali and Senegal; and
6.) a complete disc copy of project data sets from the five Food Security countries should be deposited with PPC/CDIE, subject to standard acknowledgements and caveats, and wider dissemination of the Project's innovative materials on methodology should be encouraged.

5. Lessons learned; In addition the FSA Project has demonstrated that;

1.) while developing human capital, strengthening local institutions, and fostering dialogue between researchers/policy analysts and government officials are complex activities, clear progress can be achieved in a project context, given appropriate expertise, sound management, and a serious long-term commitment. The Agricultural Economics Department of MSU has demonstrated that expertise, management, and sustained commitment in the FSA Project, and that they have achieved the continuity and critical mass of qualified scholars required for success in these endeavors. The evaluation team concludes that FSA offers U.S.A.I.D. an appropriate vehicle to pursue these vital concerns in a sustained fashion.

2.) the use of graduate student degree candidates as principal in-country researchers can be an effective, low-cost way to carry out this kind of policy-relevant research, when these students are supported with adequate "backstopping" from senior staff, and with clear methodological guidelines. Despite some initial resistance from certain missions to posting "junior" researchers in-country for this activity all missions with FSA activities now heartily endorse the strategy.

3.) the emphasis MSU has placed on working with local researchers and building up host country capacity to do this kind of research has yielded high dividends. Almost all Working Papers have been co-authored with host country researchers, and publishing in French (as well as English) for the Francophone countries (Rwanda, Senegal, Mali) underscores the project's serious attempts to support local researchers to address the target audience of host country government officials and policy makers.

4.) Finally, publication of "unpolished" results from research in progress (Working Papers) has been an effective means of encouraging on-going policy dialogue on critical food security issues. FSA project staff are
to be commended for boldly making this information available while analysis is still in process, rather than waiting for a final and more polished research product that can come too late to contribute to resolution of these important and pressing concerns.
I. INTRODUCTION

This is a midterm evaluation of the Food Security in Africa Project (936-1190) being implemented under a Cooperative Agreement between Michigan State University (MSU) and A.I.D. represented by the Bureau for Science and Technology and the Bureau for Africa. The Project was designed to assist African countries in formulating alternative policies, institutions and management processes to deal with critical short and long-term food security problems in ways that help achieve more reliable and productive food systems that benefit both producers and consumers. It focuses on the dynamic interplay between institutions, technology and policy while attempting to generate new knowledge, operational approaches, and analytical methods to enhance the ability of governments to achieve their food security goals.

The purpose of this interim evaluation was to review progress to date under the project and the cooperative agreement and to make recommendations for any needed mid-course corrections. The evaluation team also expected to reassess the relevance of project objectives to the host countries and to A.I.D.'s larger development strategies, and to estimate both short-term effects and probabilities of longer-term and sustained project impact.

As recommended in the A.I.D. Evaluation Handbook (1987;25) the interim evaluation team combined in-house expertise consisting of two A.I.D./W project officers recently assigned responsibilities for the
project and an external evaluator. In this context the evaluation team was most fortunate to have had as its senior member Professor Bruce Johnston of Stanford University's Food Research Institute, who recently completed a two-year involvement as team leader for an A.I.D./World Bank funded study (carried out under the auspices of the Bank's MADIA study,) to assess the effectiveness of A.I.D.'s activities in support of agricultural and rural development in sub-Saharan Africa. The criteria developed at that time for evaluating the effectiveness of A.I.D.'s assistance activities are of considerable relevance to this evaluation.

In some respects this is not a typical project evaluation. In particular, the MSU Food Security Project needs to be viewed in relation to Michigan State's continuing involvement in international agricultural development since the inception of the U.S. foreign assistance program. The project cannot be fully understood if it is viewed simply as a discrete, time-bounded undertaking.

The principal and unanimous conclusion of the evaluation team is that the Project is successfully addressing its objectives, and doing so in an efficient and cost-effective manner. It will be seen that a substantial amount of research of good quality and of practical value to local governments and U.S.A.I.D. Missions has already been completed and additional research is in progress in five African countries -- Mali, Senegal, Rwanda, Somalia, and Zimbabwe (and increasingly in other SADCC countries as well).
Perhaps the most notable contribution of the project, however, is that this research is being carried out in such a way that it is contributing importantly to the development of human resources, to the establishment or strengthening of local institutions with a capacity for policy research and policy analysis, and to the creation of a demand on the part of local policy makers for such research and policy analysis. Training, human capital development, and institution building are long-term processes. Much has been accomplished already but it is more important to emphasize that the objectives of the project are being achieved. A major conclusion of this evaluation is that it is very much in the interest of A.I.D. and local governments to make a long-term commitment to continue to support this kind of policy-relevant research and analysis and local institution building. The FSA Project offers a mechanism that has been proven highly effective for implementing that commitment. This conclusion applies especially to the SADCC region where progress has been steady in enlarging the regional impact of the project.

Background to the Project

In order to account for the success of the Project, it is necessary to recall the long and serious involvement of MSU, and especially its department of Agricultural Economics, in research and institution-building projects in sub-Saharan Africa (SSA). This involvement began as an immediate response to the celebrated "Point Four" in President Truman's State of the Union message in 1949. John Hannah, the President of
Michigan State at that time, responded immediately in his capacity as President of the National Association of Land Grant Colleges and Universities to offer the full support of MSU and other land grant institutions in implementing the Point Four concept. The intense and prolonged involvement of the MSU Agricultural Economics Department in particular began with the appointment of Professor Glenn Johnson, followed by Professor Carl Eicher, as directors of the newly established Economic Development Institute in Nigeria to promote applied economic research with an emphasis on the agricultural sector. The Department's involvement in training, institution building, and research activities in SSA has continued since that time. During a period in which many institutions have been cutting back on their commitment to agricultural and rural development in Africa, faculty resources at MSU have been sustained. The capacity of the Agricultural Economics Department to provide training, at MSU and in host countries, and to assist in developing in-country capacity for policy relevant research and policy analysis has probably never been greater.

The success of the FSA Project is best understood in terms of the continuity and critical mass of competent, cooperating scholars on the faculty of MSU and the experience and economies of scale that have been achieved. Developing human capital, strengthening local institutions, and fostering dialogue between researchers/policy analysts and government officials and policymakers are complex, time-consuming activities. Consequently, the sustained commitment of the MSU Agricultural Economics Department to research and institution building in SSA has been crucial to achieving the continuity and critical mass of qualified faculty required
for success in those endeavors. Moreover, the ability to make a significant contribution to training and developing local capacity for research and policy analysis is of particular importance at this stage of development of African countries, as it becomes more obvious that the "technical assistance model" whereby foreign "experts" provide "answers" is becoming obsolete. Thus there is an urgent need to facilitate genuinely collaborative research in situations in which the A.I.D.-funded resources of manpower and equipment support rather than substitute for local resources.

The FSA Project evolved out of an Alternative Rural Development Strategies (ARDS) Project, started in 1977 under an earlier cooperative agreement between A.I.D. and MSU. The objective of that project was to "enhance the ability of LDC institutions to develop and implement national rural development strategies, policies and programs to promote increased productivity, income and welfare of the rural poor" (PP amendment, p. 30). The shift to an emphasis on food security in Africa was prompted by a recognition that the macro-level perspective of that project needed to be complemented by analysis of the micro-policy environment, including careful attention to technology development and institutional issues, especially food marketing institutions and price policies.

There seems to be general agreement among A.I.D. and MSU staff familiar with the two projects that the shift from "alternative rural development strategies" to "food security" as the guiding theme for research has been beneficial. It is perceived as providing a more
specific and concrete focus, and the evaluation team was struck by how strongly policymakers from several SADCC countries, who were interviewed during the course of the evaluation, endorsed "food security" as an appropriate subject for policy relevant research. Moreover, the very ambiguity of the concept has significant advantages. The commonly accepted definition of food security as "access by all people at all times to enough food for an active, healthy life" has two important implications (World Bank, 1986). First, it directs attention to the fact that policies and programs to promote food security must be concerned not only with supply-side questions of food production, storage, and imports but also with questions of access and therefore a recognition of the importance of expanding opportunities for productive employment and income generation. In addition, the emphasis on "all people at all times" having access to "enough food for an active, healthy life" emphasizes that food security is a desirable goal that cannot be fully achieved in the short or medium-term, but one to be approached along with other economic and social goals of development. Therefore, in this as in other domains, attention must be given to trade-offs and to the difficult decisions with respect to priorities that characterize the process of deploying scarce resources to attain the multiple objectives of development.

The specific objectives of the newly defined FSA Project are:

1. to develop new knowledge, operational approaches, and analytical methods that enhance the ability of governments to identify problems, analyze program alternatives, and
formulate effective strategies for achieving food security goals, and

2. to develop new understanding of how to upgrade institutional and professional capabilities for managing national food systems (and to make a contribution to such training and institution building in selected countries).

Because of its considerable success in implementing the ARDS and its long experience and excellent track record, MSU was chosen to implement the FSA Project. Although it can be difficult to reach agreement among researchers, a U.S.A.I.D. country mission, A.I.D./Washington, and a host government or university concerning a program of research to be carried out in a particular country, the U.S.A.I.D. missions with FSA activities report good collaboration between these different parties. The Food Security theme seems to have facilitated this task of identifying a coherent set of research topics for individual countries, yet there is enough parallelism in the studies so that cross-country analysis of experience can be expected to contribute new knowledge and insights. This is just what is intended with centrally funded project activities. Giving the Project a sharper focus with the concentration on Food Security rather than Alternative Rural Development Strategies has on balance been advantageous. But it is suggested in our concluding section that there appear to be some interesting possibilities for complementing the Food Security research with parallel attention to related issues such as the
role of rural non-farm enterprises in the expansion of employment and income-earning opportunities.

Background to this Evaluation Report

Because of A.I.D.'s current budget problems, Johnston as the outside member of the evaluation team had to carry a somewhat larger share of responsibility than usual (Lucas was able to participate in the site visit to Zimbabwe but not Mali, and Yates was only able to join the other two team members for a visit to East Lansing). It therefore seemed fortunate that Johnston's involvement in MADIA and the A.I.D./World Bank assessment of A.I.D.'s activities in support of agricultural and rural development in Africa provided valuable preparation for the present assignment. MSU was one of the land grant universities that Johnston and other members of the team visited, and he also had an opportunity to review the MSU Agricultural Research and Planning Project in Senegal that was a precursor of the Food Security Project in that country.

Two major conclusions reported in the A.I.D./World Bank study are highly relevant to our evaluation of the FSA Project. First, it became clear that U.S. assistance programs in Africa have given insufficient attention to supporting the establishment and strengthening of institutions of higher education, especially Faculties of Agriculture (A.I.D. is now addressing this particular concern through the SAARFA project). Moreover, in those instances in which such support was
provided, it was often terminated prematurely. Secondly, there has been a common failure to provide follow-on support to enable Faculties of Agriculture and research institutions to become effectively involved in policy relevant and problem-solving research. In spite of the emphasis in recent years on "policy dialogue", an even more common shortcoming has been the failure to create a demand for research and policy analysis among government policymakers. In the absence of such demand from policymakers, it is virtually impossible for research and policy analysis to have a significant impact on the policy process.

A.I.D. and other donor agencies have, in general, not been notably successful in the creation of an indigenous capacity for policy research. It is for these reasons that the degree of success reached to date under the Project is indeed notable and merits continuing support from A.I.D. In order to support the generalizations put forth in this introductory section, it will be necessary to examine how the FSA Project was managed, both at Michigan State and in the countries that have been participating in the project. The second section of the report deals with those issues. In the third section we attempt to assess the quality of the research that has been carried out under the project, giving attention also to the extent that the research was carried out in a genuinely collaborative mode and focused on important, researchable, and policy relevant topics. The fourth section of the report summarizes the various techniques that have been used to disseminate the results of research and attempts to make some judgements about the impact of the research on the formulation and implementation of government policies. The principal recommendations are summarized in a short concluding section.
II. ORGANIZATION AND MANAGEMENT OF THE PROJECT

A. Organization

1. Description;

Figure 1 is a schematic diagram of the organizational structure of the Food Security in Africa project. The diagram shows two principal operating levels, the FSA Project Office, located at the Department of Agricultural Economics at Michigan State University, and the five FSA country offices, located in Zimbabwe, Mali, Senegal, Rwanda and Somalia.

The FSA Project Office and the FSA country offices are assisted by support groups including (1) AFR/TR/ARD, S&T/RD/RRD and the Contracts Office in A.I.D./W.; (2) host country offices, namely; the Department of Agricultural Economics, University of Zimbabwe in Harare, Zimbabwe; ST/CESA in Bamako, Mali; ISRA/BAME in Dakar, Senegal; SESA in Kigali, Rwanda; and the Planning Division, Ministry of Agriculture in Mogadishu, Somalia; (3) U.S.A.I.D. Missions in Harare, Bamako, Kigali, Dakar and Mogadishu; and (4) the Department of Agricultural Economics, Michigan State University.
The FSA Project Office maintains direct links with S&T/RD/RRD and AFR/TR/ARD in A.I.D./W. and the FSA country offices. Through the country offices it maintains indirect links with the U.S.A.I.D. Missions and with cooperating offices within the host country governments.

2. Evaluation;

The organizational structure and linkages between the various FSA project offices and support groups (including A.I.D./W., U.S.A.I.D. Missions and affiliated host country institutions) are simple and efficient, facilitating quick resolution of problems by informal consultation. The structure also allows the FSA country offices substantial independence and autonomy in the conceptualization and implementation of research within the general FSA research framework. This permits individual FSA teams to adapt quickly to evolving opportunities and host country needs, yet assures the MSU core staff the direction required to make research results comparable across countries and to achieve economies of scale.

In addition this structure does not require heavy investments in support and administrative staff. Except for the FSA Project Office at MSU and the FSA country office in Zimbabwe (with regional responsibility for five Southern African countries) the typical country office is staffed with only one full
time principal investigator (though backstopped with visits from MSU senior staff), an administrative assistant, a secretary and a driver. It is economic as well as efficient. Nonetheless it should be noted that there is clear need for additional office space for the support staff at MSU, and the University is encouraged to consider ways to improve this situation.
Figure 1: Organization of the Food Security in Africa Project
B. Staffing

1. Description;

The Project has a total of fifty administrative, professional and technical support staff. Of the fifteen administrative staff, two serve as co-directors at MSU. In each of the FSA country offices, the principal investigators also have administrative duties. They are supported by thirteen administrative, technical and clerical staff, three in the MSU Campus and generally two in each of the FSA country offices.

Research activities are undertaken principally by the thirty-five professional staff. Of these six are MSU resident staff who develop and guide the project as well as backstop the FSA country offices and their six in-country researchers and twenty-four local counterpart professionals. This arrangement seem to be an economical way of spreading and sharing limited staff resources.

Most of the twenty-four local professional staff serve on a full-time basis. They are partners to the MSU campus-based and in-country researchers in the identification of research issues, formulation of problems, design and implementation of research, and write-up and publication of results.
2. Evaluation;

The FSA Project management and professional staff at MSU who provide direction and who backstop country activities are recognized scholars in agricultural and development economics. Most have extensive project management and overseas experience. Host country professional counterparts are similarly well selected for their training, experience and position in the government, and potential for advancement as decision makers and policymakers in the area of food security. Many have advanced degrees from U.S. or European universities. They are apparently attracted to the project in large part for the opportunities it offers to do this kind of food security policy-relevant research, and to refine and enhance their professional skills (e.g. microcomputer applications). Of course they do receive some financial incentives for working with the project (consistent with other donor-funded
activities), though it is important to emphasize that this does not appear to play the key role in attracting and maintaining quality personnel. Ph.D. and M.S. candidates are the principal research implementation staff. They are selected for their academic competence, demonstrated ability to conduct independent research, sensitivity to cultural differences, management and leadership potential and teaching skills.

The administrative support staff at the FSA Project Office at MSU is experienced in basic office procedures, A.I.D. and MSU contracting, reporting and documentation regulations. It functions effectively even in very tight quarters. The staff requires minimum supervision on administrative matters, allowing the project Director to focus on substantive, technical and policy issues relating to project management. The evaluation team believes that the administrative and support staff of the five FSA Country Offices are similarly skilled.

C. Funding

1. Description;

The original 1984 core funding for the FSA project was $1,000,000. This was later increased to $2,600,000 (of which approximately half had been expended by 12/31/87) with additional funds from AFR/TR/ARD and S&T/RD/RRD. This money was used in part to initiate activities in particular countries,
which in turn generated buy-ins from USAIDs in Harare, Bamako, Kigali, Dakar and Mogadishu. As of November 1987 the FSA project had a total funding commitment of $4,872,000, fifty-three percent in core funding and forty-seven percent in mission buy-ins. Note that as a centrally funded project the FSA activity is expected to generate new knowledge and insights with potentially broad applicability, as well as serve particular mission needs under specific buy-in arrangements. To date the project appears quite successful in addressing the different, and at times conflicting, needs of their various A.I.D. clients.

As of November 1987 approximately $2,924,000 or sixty-percent of the project funds had been expended. The remaining funds from Somalia and Rwanda will be used to wind up current activities in those countries. The evaluation team notes that project management has done well in leveraging other funds to complement project activities (e.g. in Rwanda) though despite this, and despite a healthy funding pipeline, current estimates indicate a need for more than $300,000 in additional core funding, to be applied no later than FY 90 in order to continue present FSA activities (see appendix, tables 2 and 3). Of course more funding would be required if the project were to expand activities to other countries or give more attention to other themes (as is in fact recommended in this evaluation report).
2. Evaluation;

The FSA Project Office at MSU employs less than three full time staff for management and administrative purposes. This unit services all the contracting, documentation, reporting, and communication activities of the project. The Evaluation Team finds the operation and functioning of this unit extremely efficient and cost effective. The procedures they have developed for financial and other reporting are uniformly excellent, and could usefully serve as models for other A.I.D. projects. In addition the country briefing book looseleaf binders, regularly updated from MSU with new "country fact sheets", relevant project and host country documentation, research matrix and survey taxonomies, and new Working Papers are an especially helpful innovation that keeps A.I.D./W. project staff informed of project status and activities. The MSU senior and support staff should be commended for their superior performance in this regard.

Similarly, the FSA in Zimbabwe is staffed and managed very economically. For example, all the logistic, housing, reproduction and reservation needs of the 137 participants to the Third Annual Food Security Conference in Harare (held November 2-5 1987) was effectively handled by only one Administrative Assistant.
In general, the cost of long and short-term technical assistance from the FSA Project appears in line with current opportunity costs in the U.S. The salaries of the research associates and in-country counterpart professional, administrative and support staff are in some cases higher than prevailing in-country civil service rates, though consistent with those generally provided by other donor-assisted projects. This margin of difference allows the project (and U.S.A.I.D.) to compete for some of the best professional, administrative and technical staff in the countries where they work.

The evaluation team is convinced that the financial management of the project is economic, efficient and responsible.

D. Implementation

1. Description;

The Project operates through the FSA Project Office at MSU and the FSA country offices in Zimbabwe, Mali, Rwanda, Senegal and Somalia. These are supported by the A.I.D./W offices, the U.S.A.I.D. Missions, and the offices of
the various ministries, agencies and universities of the host country governments who work with the project.

The FSA Project Office at MSU is the principal administrative and training unit of the project. In that capacity, it:

- negotiates project funding in A.I.D./W. and buy-ins from U.S.A.I.D. missions,
- reports to and seeks administrative guidance from the project managers in A.I.D/W.,
- channels funding and provides technical backstopping and administrative guidance to the FSA country offices,
- plans and implements country and regional conferences and workshops related to food security research, and
- provides input into the development of implementation agreements with the governments of the participating countries, the U.S.A.I.D. Missions and A.I.D./W.

The FSA country offices are the principal research units of the project. In that capacity they must:

- maintain good working relationships with the offices in
the host countries to which they are affiliated, and with the U.S.A.I.D. missions,

- prepare the research and training agenda with the counterpart professional staff, the Project Office backstop officers and the Project Officer in the U.S.A.I.D. mission,
- implement the approved plan of work, including the field surveys, preparation and distribution of Working Papers, and policy and professional dialogue with host country officials and other professionals involved in food security issues,
- provide technical and policy advisory services regarding food security matters to host country governments and U.S.A.I.D. missions, and
- provide periodic and special reports to host country governments, U.S.A.I.D. missions and the FSA Project Office at MSU.

2. Evaluation;

The Evaluation Team concludes that project implementation has been responsible and efficient. Actions relating to funding and implementation are formally documented and filed at the FSA Project Office, FSA country offices, and in A.I.D./W. Decisions are recorded regularly and transmitted in memoranda, letters, periodic reports and State Department telegrams.
Administration of research is effective and collegial. Principal investigators and backstop officers are given substantial freedom in the conceptualization and implementation of research activities, though such freedom is productively confined within the framework of project purposes and objectives. The evaluation team believes that this kind of management style has played an important role in the success of project activities. Although research administration is relaxed and collegial the actual conduct of research follows formal scientific procedures, and Project staff have devoted much effort to refining their methodologies, with impressive results (see section III below).

Based on in-depth interviews at the MSU campus the evaluation team is convinced that the FSA Project enjoys the full support of the Department of Agricultural Economics and the University. Certain MSU regulations have been amended to recognize the unique character of international work, and the University allows "non-traditional" services and quality performance in international development activities to play an important role in consideration towards faculty tenure and promotion. At present there are six tenured faculty members working with the FSA Project at the Full Professor or Associate Professor levels.
Similarly, U.S.A.I.D. Missions are supportive of the FSA project. Their support extends beyond usual logistical support to participation in substantive technical and policy issues. For example, U.S.A.I.D./Harare guided the FSA research to address regional food security concerns of the SADCC member states. U.S.A.I.D./Bamako involved the FSA in-country project staff in rigorous analytical work needed by the mission for policy dialogue with host country officials and representatives of donor agencies.

The FSA Project staff report that the support they have received from A.I.D./W project officers since FSA's inception has been of generally high quality, though the rapid turnover in A.I.D. personnel assigned to the project has meant some real inefficiencies. In addition project management at MSU expressed concern about future funding and, in that context, about the role of the S&T Bureau in the Project, given the declining levels of financial support which that Bureau has provided. These issues will become increasingly important if A.I.D. considers extending the Project beyond the current PACD.

In sum, the Evaluation Team finds the present system of project implementation and research administration effective.
III. QUALITY OF RESEARCH

Our Scope of Work for this evaluation directs us to consider "the extent to which the project has taken a food systems approach to researching food security issues, and the utility of the project's approach in answering important questions regarding food security." We are also asked to assess the "usefulness of the research from the viewpoint of operational agencies, including AFR and S&T Bureaus, USAID's, and host country institutions" and also from the viewpoint of the generation of new knowledge and its "general utility to the overall research community." In addition, attention is to be given to the extent that the project's research results are based on "consistent research approaches being taken across countries so that the project's research results will be generalizable beyond single countries."

Clearly there are bound to be tensions in attempting to design and carry out research of high quality from all of those different viewpoints. The evaluation team offers its general assessment of the degree of success realized in satisfying those various objectives at the end of this section. It is well to note at the outset, however, that judgements concerning the quality of the research will differ depending on the weight given to "disciplinary research", "subject-matter research", or "problem-solving research". The fact that research under this project is being carried out under a cooperative agreement with AID and with funding from individual USAID missions biases the research towards the problem-solving end of the spectrum.
Research under the Food Security Project has, in fact, emphasized "subject-matter" and "problem-solving research". We consider that emphasis appropriate not only because it is consistent with the priorities of the Agency but also because of the great and pressing need that exists to strengthen local capacity for policy-relevant research and analysis in the countries of sub-Saharan Africa.

The cable responses (appendix 3) from the missions in Rwanda, Senegal and Somalia to certain evaluation questions are worth quoting in this context:

"National capacity in food security research was strengthened in so far as a modality was established for research on crops in addition to beans. Counterparts were trained in data collection and analysis as well as computer applications. They are now applying the sub-sector approach to sorghum" (Kigali);

"National capacity in food security research has been strengthened ...to pursue a range of issues relating to household, regional and national food security research topics" (Dakar);

"The two counterparts worked with the MSU researcher for a period of 15 months during which they received constant on-the-job training in data collection, survey design, analysis and presentation of results. For this reason, the counterparts are able to do research on other crops themselves with much less
supervisory input from expatriate technicians" (Kigali);

"As a result of ...(counterpart) skills building, one of the researchers will participate in a major research project on agricultural price policy to be financed by USAID and carried out with the assistance of IFPRI. Second, the data base has been cleaned and will be available for future analysis; this is particularly useful because the research was designed to complement research being carried out in the principal cereals production zone..." (Dakar);

"The Somali researchers participating in the day to day research activities have received good in-service training" (Mogadishu).

The emphasis on the practical value of the research and training being carried out under the FSA project was also evident in the Third Annual Conference on Food Security in Southern Africa held in Harare, Zimbabwe from 1-5 November 1987. Thus an economist from Zimbabwe's Ministry of Land, Agriculture and Resettlement summed up what appears to be the prevailing view by noting that "The papers are very practical in their orientation. I know that they will be very useful to the Ministry." Indeed, a special workshop on the Zimbabwe wheat subsector was held immediately after the conference, with the MSU project enlisting the participation of several other highly qualified experts (e.g. professors from the University of Zimbabwe and three agricultural economists from CIMMYT).
One consequence of the bias toward applied research of practical value to policymakers is an emphasis on preparing working papers to report on research findings soon after the completion of field surveys (see section IV below). This is related to two principles that have guided research carried out under the Project. First, there has been an emphasis on using a combination of junior and senior staff from MSU. In most instances the junior staff participants have been very able doctoral candidates prepared to spend 18-24 months in a host country with much of that time devoted to carrying out field research in collaboration with local counterparts. This research has provided (or is providing) the basis for doctoral dissertations, but the individuals concerned appear to have accepted fully the idea that their assignment as an "in-country researcher" includes responsibility for training local collaborators and participating in the process of presenting research findings to local officials.

A large number of Working Papers have been prepared in each of the 5 African countries. We have been able to review most of these, as well as a number of FSA Project-related articles and presentations at international conferences. Many of the Working Papers focusing on Zimbabwe and other SADCC countries have, of course, been presented at one of the three annual conferences on Food Security in Southern Africa. The working papers are inevitably of uneven quality and represent reports on completed research, on research in progress, and on plans for future research.
The participation of Johnston and Lucas in the Third Annual Conference on Food Security Research in Southern Africa gave us an opportunity to not only read but hear the presentation and discussion of the papers presented at the November 1987 conference. The evaluation team was very favorably impressed. The first day of the conference was devoted to SADCC's Food Security Program. The second day was devoted to Market Liberalization and Food Security, and included papers examining the experience of Tanzania, Malawi, Zimbabwe and Mali. The paper on "Market Liberalization and Food Security in Tanzania" by B. Ndulu, H. Amani, N. Lipumba, and S. Kapunda was one of the highlights of the Conference. The $10,000 invested by the UZ/MSU Food Security Research Project (in the context of the FSA Project) in commissioning this major and timely monograph will have a remarkably high marginal return on the large investment in human capital represented by the Ph.D. training of the four co-authors (Ndulu at Northwestern, Amani at MSU, Lipumba at Stanford's Food Research Institute, and Kapunda at the University of Dar es Salaam). In addition to having an extremely valuable intellectual impact on the participants from the other eight SADCC countries, the paper also set a high standard for the other researchers and policy analysts at the conference. Moreover, it seems likely that the preparation of this paper and participation in this conference on Food Security Research in Southern Africa by the four authors will make them even more effective in their ongoing dialogue with government policymakers and party officials. It is also noteworthy that the Zambia delegation to the conference invited two of the four authors to visit the University of Zambia for an all-day seminar to discuss the paper and Tanzania's recent experience. Here the
important catalytic role the FSA Project is playing in the SADCC region should be noted.

In this as in other conference sessions, the judicious selection of discussants and their comments on the various papers made an important contribution to the success of the conference. For example, the selection of John Milimo of the University of Zambia as discussant of the Tanzania paper probably contributed to the spin-off whereby his delegation extended the invitation to two of the Tanzania authors to present the paper and take part in a seminar in Zambia.

Several special features of the UZ/MSU project on Food Security Research in Southern Africa should be noted. The objectives of the project are to promote research on important food security issues in southern Africa and also to help develop indigenous capacity for policy research and policy analysis in Zimbabwe and other SADCC countries. Those ambitious objectives appear feasible because of the collaboration of MSU researchers with very able members of the UZ's Department of Agricultural Economics, easily the strongest department of agricultural economics in the SADCC region. Furthermore, the project has been able to secure the collaboration of several other well-qualified agricultural economists.

Finally, the MSU co-director of this project has been a senior faculty member from the beginning of the project, initially Professor Carl Eicher and currently Associate Professor Richard Bernsten. One of the recommendations put forth in Part V is that a second faculty member be
assigned to this UZ/MSU project to provide additional staff resources for promoting food security research and the development of research and policy analysis capabilities in the other SADCC countries.

The research program carried out in Mali under the Food Security in Africa Cooperative Agreement is more typical of programs in the other four countries participating in the project. There is no University department of Agricultural economics in Mali, and the cooperating indigenous institution -- the Technical Secretariat of the Food Sector Strategy Commission (ST/CESA) -- does not have the capacity to engage in collaborative research. An important activity now under way as part of the second phase of the project is to identify the most appropriate local institution to enter into a collaborative research arrangement.

It is important to note, however, that the original in-country researcher (Josue Dione) is a very able Malian agricultural economist who had completed all of the requirements for a Ph.D. at MSU except a dissertation (now being completed in East Lansing). In addition, MSU was able to recruit a second Malian who had just finished a Master's degree in Economics at the University of Michigan, Ann Arbor, to work with Dione on the research in Mali. Following that initial assignment he spent six months at MSU strengthening his academic background in agricultural economics and is now back in Mali on a two-year MSU assignment with the in-country research team. That in-country team also includes two well-qualified MSU doctoral candidates, and part-time participation of their spouses who are M.Sc. candidates in the Agricultural Economics
Department at MSU. This kind of careful FSA staffing and targeted training has helped compensate for institutional weaknesses in Mali and in other FSA countries.

It is also important to note that there has been unusually close collaboration between the MSU research team and the USAID mission in Bamako. The mission agricultural economist there was a very active participant in the PRMC (Cereal Products Restructuring Committee) made up of the donor agencies that are the principal sources of food aid for Mali. The PRMC has been an interesting attempt to achieve better donor coordination and to use food aid to promote improvements in grain marketing. There has often been lively disagreement between the North American and European members of the Committee, with the latter being inclined to adopt the typical French emphasis on the alleged need for "organization of markets" whereas the American and Canadian members have stressed the advantages of market liberalization and of relying on competition to curb the tendency for traders to pay producers "too little" and to charge consumers "too much." The results from the MSU research on coarse grain marketing of the effects of interventions by OPAM, Mali's grain marketing board, have been of great value in providing factual information on key issues being considered by the Committee and by the Malian government. Close and positive collaboration between MSU researchers and U.S.A.I.D. missions has also characterized project activities in the other FSA countries (see mission cables in appendix). The U.S.A.I.D. missions have been satisfied with the performance of the MSU in-country researchers. Mission cables use words like "top notch,"
first rate" (Kigali), with "sound professional skills" (Dakar) to describe their performance. Despite some initial mission reservations to posting "junior" researchers to work on vital policy-oriented research, the FSA project has demonstrated that the use of graduate student degree candidates as principal researchers can be an effective and low-cost way to carry out this kind of research, when these students are supported with adequate backstopping and with clear methodological guidelines.

In all five countries back-up by highly competent faculty members from MSU, who have had substantial field experience in Sub-Saharan Africa and other developing regions, has contributed significantly to the quality and the value of research carried out under the project. The missions were unanimous in this assessment, reporting that the MSU staff are "fully qualified, capable" (Mogadishu) and have "responded very effectively to our needs and objectives" (Kigali). The FSA faculty members take their back-up responsibilities seriously. In addition to providing valuable intellectual stimulation and guidance for MSU in-country researchers, the visits of back-up faculty provide useful opportunities to schedule seminars with U.S.A.I.D. staff and government policymakers.

Two other aspects of the MSU back-up to in-country research have contributed significantly to the quality and timeliness of the research produced under the project. First, the faculty in the Agricultural Economics Department at MSU have given serious and sustained attention to problems of research design and carrying out field research in Sub-Saharan
Africa. As noted earlier, the design of food security research under the project poses special problems because of the need to serve a diverse set of interests. The problems of planning and implementing field research, including timeliness in the processing, analysis, and reporting on the findings from field surveys, are also difficult and important. A September 25, 1986 memorandum by Dr. Michael Weber ('Update on Research Design, Data Collection, Processing and Analysis Methods) and an April 1987 paper on "Research Planning and Management Methods for Food Security Studies in Africa" are important examples of the serious efforts that have been made to learn from past experience and to provide practical guidance to MSU field researchers as well as to assist in achieving the training objectives of the project.

The FSA Project has developed special instruments to address these concerns, including the Research Planning Matrix (used to focus systematically the subject matter of the research), the Survey Taxonomy (used in part to make data collection more cost-efficient), and the Research Survey Scheduling Form (used to organize sequentially the different research activities of the project). Together, they provide a basis for a comprehensive system of problem identification, research planning, and diffusion of results through which analysis can be conducted in a more systematic and efficient manner. The evaluation team believes these particular instruments could eventually have broader applicability to other A.I.D. projects.
Special mention should also be made of the attention that has been given to promoting efficient use of personal computers (PCs) by MSU in-country researchers and their collaborators in host countries. This is an instance where economies of scale have been important. Two highly competent programmers from the MSU computer center are assigned to the Agricultural Economics Department to assist on computer problems ranging from the selection of hardware to the use of software programs for data storage, retrieval, and analysis as well as word processing. This has included visits to host countries by one of the MSU computer specialists to carry out on-the-job training in host countries for host country researchers, as well as offering practical training to assist faculty, graduate students, and others in East Lansing. U.S.A.I.D. missions have acknowledged the importance of this assistance. We were also impressed with the serious attention that has been given to making effective use of this powerful and economical research tool. The quality, quantity and timeliness of the research carried out under the project would not have been possible without exploiting the capacity of microcomputers. As the Project winds up activities in Somalia, Rwanda and Senegal it could be useful to send some of the more promising local staff to attend the computer-based policy analysis workshop sponsored jointly by the Harvard Institute of International Development and IFPRI (schedule for June 12-July 15 1988 in Nairobi Kenya).
IV. DIFFUSION OF OUTPUTS AND ATTAINMENT OF
PROJECT PURPOSES AND OBJECTIVES

Background

This section deals with the specification and measurement of inputs and outputs, and evaluation of the process of diffusing the outputs towards the attainment of project purposes and objectives. This process of relating input to output and output to project purpose is a standard A.I.D. project design and evaluation methodology known as logical framework analysis or LOGFRAME. One advantage of this procedure is its logical and internal consistency relating essential project components to objectives. A disadvantage of this procedure is that certain outputs and relationships beyond the output level are difficult to verify empirically. They remain as hypotheses, to be validated largely qualitatively through presentation of cases, evidence, precedents, theory and experience. The Evaluation Team will present evidence showing that the outputs of the project are of sufficient magnitude and quality, and that these outputs have in general been efficiently diffused leading towards the attainment of the project purposes and objectives.
A. Inputs

There are three main categories of inputs, namely; Personnel, Direct/Indirect Costs and Commodities.

Personnel cost is the cost of all fifty administrative, professional, technical and support staff. At the FSA Project Office in MSU and in the five FSA Country Offices, the personnel cost consisting of salaries, fringe benefits, travel and allowances total $1,648,000 or fifty-six percent of Project expenditures to date. Of this, about thirty-four percent was paid to MSU resident staff (this includes their time spent in the FSA countries in Africa) and twenty-six percent to staff based in the five project sites.

As of November 1987 Direct/Indirect costs are estimated at $1,108,000 or thirty-eight percent of total expenditures. They refer to the operational cost of conducting research in the five project sites, hosting conferences, training, publishing and diffusing results, and administrative overhead. Many of these costs are incurred at MSU, and in Zimbabwe, Mali and Senegal.

The last category of input is Commodities. These expenditures refer to the purchase of project vehicles, computers and associated software, office
furniture, supplies and equipment. It represents only six percent of total expenditures to date. The small proportion of this cost relative to personnel and direct costs reflects management emphasis on development and proper utilization of human resources.

B. Outputs

There are four principal outputs of the project, namely, (1) Working Papers and Conference Papers, (2) trained food security researchers and analysts, (3) databases, and (4) food security research methodologies.

1. Working Papers and Conference Papers

Table 4 shows the number of Working Papers and Conference Papers by country origin. Table 5 shows the number of Working Papers and Conference Papers by subject matter focus.

The Food Security in Africa project has to date produced 91 research papers, of which 52 have been published as Working Papers and 39 as Conference Papers. Working Papers are the results of research conducted in the five FSA country offices; 21 from Zimbabwe, 9 from Mali, 7 from Senegal, 8 from Rwanda and 7 from Somalia. The Working Paper is the principal Project mode for
diffusion of research results. It eliminates the formal review and approval process of refereed journals, and thereby reduces considerably the "turn-around-time" between obtaining new research findings and their practical application in policy formulation. This emphasizes that the principal audience for the research is in fact the host country policy makers, and stresses the need to inform on-going and evolving policy debate on critical food security issues. In-country staff have often used successfully the release of Working Papers as vehicles to bring together and inform relevant policy makers of new and important research findings, and to encourage policy dialogue.

Table 9 shows the distribution of Working Papers published from the FSA activity in Mali. As in all the FSA countries, note that almost all have been co-authored with host-country researchers. The large number of publications in French (as well as English) in the Francophone countries (Mali, Senegal, Rwanda) underscores the project's serious attempts to support local researchers to address the target audience of host country government officials and policy makers. About fifty percent of the Mali papers have been distributed to government offices and private agencies in-country. The rest were sent to selected government and private agencies, academic institutions and donor agencies outside of Mali. All Project Working Papers (as well as relevant MSU International Development Papers and MSU Working Papers) are sent
directly to PPC/CDIE when ready for wider distribution, which broadens considerably their potential audience, both within and outside the Agency.

Most of the Conference Papers are contributions from member countries of the SADCC region, sponsored by the SADCC Food Security Administrative Unit of the Ministry of Agriculture, Government of Zimbabwe. The Conference Papers differ from the Working Papers in the audience they serve, in their emphasis on both regional and national issues, and in the way they are reviewed and approved for publication. Thirty-nine Conference Papers have been presented during the last two years. Of these, 21 came from Zimbabwe, and 18 from the rest of the SADCC member countries. Editors of the 1987 Conference Papers noted a sixty percent increase in the number of papers presented, from 15 in 1986 to 24 in 1987. The evaluation team also notes a significant improvement in the quality of the papers and the variety of topics they addressed.

Table 4 demonstrates the prominence of Zimbabwe as the principal contributor of research papers in food security, with approximately 40% of the Working Papers and 55% of the Conference Papers. This reflects Project strategy to build up Zimbabwe as a research and training center in the SADCC region for food security themes. More emphasis will be placed on regional
food security issues in the second half of project life.

2. Students, Research Associates and Scholars

Appendix Table 6 summarizes the number of graduate students who have obtained MS and Ph.D. degrees with some FSA Project core staff orientation. Table 7 (appendix) shows the number of professional counterparts and FSA scholars involved in research. The trained graduate students, professional counterparts and FSA scholars constitute an important dimension of institution building and investment in human capital that should remain with the country long after termination of the project. It is through this dimension of the project that the multiplier effect, referred to by M.S. Grindle and R. L. Meyer in their "Final Project Evaluation of the Alternative Rural Development Strategies, 1985", manifests its greatest impact.

Since the project started in 1984, thirty-seven students with FSA Core Staff orientation have graduated or are in the process of completing their M.S. (two-thirds) or Ph.D. (one-third) degrees with the Agricultural Economics program at MSU. Of these, thirteen received direct financial support from the Project. The remainder worked on food security related research under the guidance of FSA core staff. However, only thirteen or thirty-five percent of the total came from Africa. Of the ten FSA assistantships, only two were granted to African students.
One reason for the predominance of non-African graduate students involved in the FSA project is the need for immediate start-up of research activities in the participating countries. In addition in some instances the governments of the participating countries could not spare their qualified personnel for the three to four years required to obtain advanced degree training in the U.S. To get the research started, project management selected several highly qualified non-African students willing to work immediately on food security problems in Africa. Nevertheless the evaluation team recommends increased efforts to recruit qualified African graduate students to work under the auspices of the Project.

In addition to formal training for advanced degrees the FSA Project has also involved thirty-two professionals and four FSA scholars in work as research associates. They work with the MSU in-country researchers and backstop officers in project design, data collection and analysis, interpretation, and writing and publication of results. Most of their papers are authored jointly with their professional counterparts at MSU.

One significant accomplishment of the project that cannot be quantified is the transfer of the application of computer technology in data management and analysis (see section III above). Most host country research associates have
learned new skills in research design, survey techniques, data management and analyses with the use of the personal computer, and this should yield dividends for many years to come.

3. Databases

Table 8 presents the kind of primary data collected by the project from four of the five FSA participating countries.

FSA researchers use a variety of data collection procedures. For example, a structured survey using probability sampling was used for household, farmer and trader surveys. Census or complete enumeration of respondents was used in the collection of farm and household data from selected villages. Purposive sampling and informal interviews were used in market agency and trader surveys.

All of the primary data generated under this project are in computer files at the FSA Project Office at MSU, at the FSA country offices and at the U.S.A.I.D. Missions. Complete data sets will be left in-country at the termination of the research (note that use of this data by outside parties is not permitted within twelve months of the termination of the project). The evaluation team recommends that a complete disc copy of the project databases be placed on file at PPC/CDIE to be accessible to other researchers, subject
to standard acknowledgements and caveats. The costs of preparing the data discs should be absorbed by the Project's core funding.

4. Research Methodology

The Research Planning Matrix, the Survey Taxonomy and the Task Calendar developed by the FSA Project Office are the principal instruments in research administration (see section III above). The Research Planning Matrix is used to help conceptualize, identify and focus on the important variables that directly relate to the research objectives. The Research Task Calendar is a useful management tool and helps identify and schedule the various sequential steps in the research process, from the initial design of survey instruments to writing the first draft of the research results for publication and diffusion.

Use of these basic instruments can be modified slightly by the principal investigators on a case-by-case basis. Together, they provide a basis for a comprehensive yet manageable system of problem identification, planning of research and diffusion of results. They complement the standard statistical analysis used in survey research, and provide a framework through which the research can be conceptualized and analysis conducted in a more systematic,
efficient and cost-effective manner. The evaluation team believes these tools could have broad applicability in similar A.I.D. projects.

Diffusion of Outputs

The primary method for diffusing project results has been the publication of Working Papers (see section IV.1. above). While this has generally been an effective way to communicate findings and encourage on-going policy dialogue, there are indications that additional dissemination channels would be helpful in some countries and with certain audiences, especially as research findings become more polished (e.g. cable from U.S.A.I.D./Dakar). The annual Food Security Conferences in Harare appear to be one excellent way to encourage diffusion of FSA project results, and more emphasis should be given to similar conferences and workshops in other FSA countries and regions (e.g. the Sahel). In addition the Project should consider regularly preparing concise one or two page summaries of major research findings, aimed in particular at high level government officials and policymakers.

The FSA project made forty-two presentations (see table 10, appendix) within the last three years. Most of these were given to host country governments, followed by academic institutions. Presentations to
U.S.A.I.D./Missions and A.I.D./W. also figure prominently. The lower frequency of presentations in Zimbabwe is due to the regularly scheduled annual conference on food security jointly sponsored by MSU (through the FSA Project), the University of Zimbabwe and the Food Security Administrative Unit of SADCC.

Table 11 (in appendix) summarizes participation in the November 1987 regional conference in Harare, Zimbabwe, and in two policy conferences organized by A.I.D. and F.A.O. for Anglophone and Francophone Africa. Note that of the 125 participants 48 or 38% came from academic institutions, with virtually the same number from government ministries in the SADCC states. This heavy host-country government participation is very significant, and underscores the important opportunity these Conferences provide for critical policy dialogue in both formal and informal settings. In this context the Deputy Minister of Agriculture in Zimbabwe reported to the evaluation team that his staff summarizes the more important Conference findings for senior staff meetings with the Minister. The interest shown by upper and middle management civil servants in discussing these issues with academic researchers was also striking, and participation by the private sector is notable. Note that by regional origin approximately 78% of the participants came from SADCC member countries. This initiative should be strongly encouraged.
Attainment of Project Purposes and Objectives

In the final analysis, this evaluation will have to determine the extent to which the project has attained the objectives set forth in the Memorandum of Agreement with A.I.D. and with the governments of Zimbabwe, Senegal, Mali, Rwanda and Somalia. We have examined the structure and management of the project at the FSA Project Office and the five FSA country offices, the Project inputs or resources provided to each country, the outputs that have resulted from the delivery of these inputs, and the diffusion and impact of these outputs on technology, institutions and policy in the participating countries. Careful examination of the data presented in the previous section suggests that the purposes of the project are in the process of being met in all of the participating countries. Perhaps it is instructive to review the evidence in a reconstructed logical framework format as shown in the table below.
Table _: Reconstructed Logical Framework for the
Food Security in Africa Project
The evaluation team concludes that the project has managed resources carefully and economically in order to begin to attain the objectives it has set forth to accomplish. It has put together and sustained a cadre of high quality development professionals at MSU to backstop the different research teams in the field. It has established good working relationships with host country governments and U.S.A.I.D. missions in each of the five project sites. It has provided substantial amounts of high quality consultancy services, not only to the research teams, but also to the U.S.A.I.D. Missions and the host country governments. Project staff have trained local professionals to identify researchable problems and issues, analyze data, publish and diffuse results, and articulate their findings effectively to other professionals, government officials, policy makers and representatives of donor agencies. Of course this is an interim evaluation and much work remains to be done, but the evaluation team is convinced that MSU is on track.

In addition to the above, the FSA project has accomplished the following:

- established competent research teams in each of the participating countries;
- provided financial support to thirteen graduate students and helped train a total of thirty-seven students towards advanced degrees with special emphasis and experience in food security research in Africa,
- developed data bases that will be useful for future analysis,
• published fifty-two Working Papers and thirty-nine Conference Papers of generally high quality, and
• trained thirty-six host country counterparts in relevant economic and policy analysis.

In addition the evaluation team recognizes that there have been other important project accomplishments that are more difficult to quantify. Evidence of growing local institutional capacity to identify, analyze, and articulate food security problems and issues, and to develop appropriate policies and strategies towards resolution of the same, is one important example of such impact. The significant changes in attitudes reported to the evaluation team among key host country government officials on the importance of this kind of policy research is another major development that the Project has helped bring about, as is the growing appreciation among policy makers in Africa of the relevance of good, systematically collected field data to the solution of critical food security problems.

This data and analysis is now being used effectively not only to monitor the effects of existing agricultural policies but also to help inform on-going policy dialogue of the potential impact of policies before they are implemented. In this context the Project has challenged traditional wisdom on several fronts. In Rwanda, for example, the GOR was considering implementing a relatively high floor price for beans (a staple crop) as a way of increasing small farmer income. However, FSA Project analysis revealed that more than 70% of the rural households actually purchase more beans than they sell, with only 7% of the farmers marketing
fully 81% of the beans sold. The higher floor price, if successful, would have raised the rural purchase price to even higher levels, and made the majority of the rural population even worse off than before. This is of course precisely the opposite result the GCR had hoped to achieve.

Similarly in Senegal the government was hoping to increase national rice "self-sufficiency" by stimulating local rice production with higher prices (through restriction of rice imports). However, the FSA Project was able to demonstrate that technical parameters seriously constrained major increases in national rice production, and that even if local rice prices were to double (causing major hardships to both urban and rural consumers) national self-sufficiency in rice production would be increased only marginally.

In contrast, in Mali the Project was able to demonstrate how appropriate credit and marketing policies can stimulate production and encourage more effective household food security strategies, actually more than offsetting the advantages of higher rainfall enjoyed by farmers in other parts of the country. The Project was also able to demonstrate that the timing of the GOM's "head tax" was not conducive to timely investments in improving agricultural productivity and actually diminished the overall food production capacity of the regional food system.

Many more illustrations of this kind of impact can be noted. In Zimbabwe, for example, the project has contributed towards the formulation of the Agricultural Sector Strategy for the SADCC region. It has reinforced the staff and institutional capacity of the University of
Zimbabwe to conduct policy oriented research in food security. More importantly, the project has served as a catalyst for improved collaboration between the Food Security Branch of the Ministry of Agriculture, the SADCC Food Security Unit, the Department of Agricultural Economics and the Department of Economics of the University of Zimbabwe.

In Mali the project has contributed its field-level farm and household data and the analytical expertise of project staff to support the design of policies and institutions aimed at a restructuring of the national cereals market. Work is now in progress to evaluate the capacity and willingness of private investors to take over ownership and management of key aspects of the local food systems. This study is expected to provide the basic data for the design of a privatization scheme for input and output marketing.

In Somalia emphasis was placed on studying the effects of institutions, markets and technology on investment decisions and production of maize and sesame and the implications of the same on food security for the country. The Vice-Minister for Agriculture wrote in a letter to the U.S.A.I.D. Mission Director (7/7/87) that "The Food Security Project...has tremendously contributed to the MOA's analytical capability and the generation of baseline research data useful for planning and policy decisions related to Food Security....some of which has already helped the MOA to make major food security policy decisions." In this context the evaluation team notes that all missions with FSA activities report significant involvement of host country institutions in the design
and execution of the research (e.g. the mission cables). This is basic to the process of institution building.

However, as the U.S.A.I.D. mission in Somalia points out, while "Individuals working on the project have gained new experiences and capabilities", "keeping these talents productively at work in the MOA or other Somali institution is a much longer term institution building process" (Mogadishu cable, in appendix 3). The evaluation team concurs with that general assessment, and reiterates the need for a long-term donor and host country commitment to build the capacity of host country governments to deal with their critical food security needs. The team believes the FSA Project is making important strides in that regard. To quote from the mission cables once again, "By its very nature the project will have impact over the long haul. We are confident that we are going in the right direction" (Kigali). The mission in Dakar writes "We believe there will be wide interest in the final research products."

The particular FSA country activities reflect the individual interests of the various U.S.A.I.D. Missions. However, the conceptual framework of the project, the research methodology, the skills learned, and the attitudes acquired by the host country counterparts and policy makers will remain to the participants and to the countries long after the Food Security Project for Africa will have terminated.
V. CONCLUSIONS AND RECOMMENDATIONS

The evaluation team is convinced that this kind of policy-relevant food security research is both vital and urgent, and that it can be done effectively in a project context with appropriate expertise and good management. The most important conclusion stemming from this mid-term evaluation is that the performance of the Food Security in Africa project with MSU demonstrates this expertise and sound management. Assuming the project continues to perform in this fashion, U.S.A.I.D. should consider an extension of project activities and of the cooperative agreement with MSU beyond the current termination date of 1991. While this kind of conclusion is perhaps more appropriate for a final, rather than interim evaluation, the evaluation team nevertheless wishes to emphasize that the kinds of critical issues now being addressed by the project can in fact only be addressed effectively with a long term perspective and commitment. MSU has demonstrated that commitment, and U.S.A.I.D. can do the same through this effective FSA Project. The point is that the need for this type of research and policy analysis and building of indigenous capacity for the same is so great that it would be logical to sustain an on-going project that is furthering those objectives, as long as there is a need and as long as the collaborating institutions and host country governments are prepared to accept such assistance.
In addition we strongly recommend that A.I.D. seek ways to enlarge this type of activity by involving other universities that have strong and recognized capacity for research and training of researchers and policy analysts in sub-Saharan Africa. We recognize this may be viewed as "unfair" by colleges or universities that are excluded because they do not have the experience and demonstrated capacity to carry out high-quality collaborative research and training in African countries. In our judgement, however, the task is so important and so difficult that the disservice to African countries of A.I.D. support of less than fully qualified institutions for the implementation of projects of this nature outweighs the costs of not involving a larger number of institutions. A.I.D. and MSU should, however, give more attention to ways to involve other universities (and, where appropriate, other disciplines besides agricultural economics) that have demonstrated competence in carrying out policy relevant research in Africa but which lack the long history and "economies of scale" that have contributed to the success of this Cooperative Agreement between A.I.D. and MSU. It was noted that in several instances MSU has taken advantage of the availability of well-qualified faculty and graduate students from other universities, but we recommend that considerably more effort be made to identify and take advantage of such possibilities. In addition opportunities for closer collaboration with other related research initiatives, such as the work on small and medium-scale enterprises in rural non-farm activities (led by Dr. Carl Leidholm) presented at the 1987 Conference on Food Security Research in Southern Africa, should be sought.
Specific Project Recommendations

1. MSU faculty should give higher priority to the preparation of articles for refereed and prestigious journals that draw upon the empirical findings and insights derived from this Food Security Project. In our discussion of the Quality of the Research (Part III) we noted that there have been cogent reasons for a bias toward "subject-matter" and "problem-solving" research that is regarded as relevant and timely by national policymakers and USAID missions. We endorse that emphasis and recognize that it has a high opportunity cost because it is so time-consuming. Nevertheless, we recommend strongly that the MSU faculty involved in the Food Security Project find ways to draw upon the in-country research in the preparation of comparative and more analytical papers for professional journals that will reach a larger audience of development economists and students. This could play a major role in helping to focus more of the attention, resources and expertise of the academic and broader development community on food security issues in Africa, and this could have important pay-offs in the years ahead. A related recommendation is that the project now put high priority on synthesizing research results across countries and begin to develop useful generalizations that can help guide policy research, analysis, and institution-building in other African countries (and perhaps in other regions of the world).

2. A second recommendation is to assign an additional MSU faculty member to the Project in Zimbabwe, in order to take advantage of the
opportunity to strengthen support for developing human resources and institutional capacity for food security research and policy analysis in the SADCC region. The evaluation team qualifies this recommendation by proposing that less research resources be devoted to Zimbabwe per se, but with more devoted to regional SADCC concerns. The FSA Zimbabwe office probably remains the best center for this regional activity, given the Project's formal and productive affiliation with the University of Zimbabwe and the UZ's relationship with the MOA.

3. The Project should give more emphasis to organizing national and regional workshops to deal with Food Security issues. While the Working Papers are generally effective mechanisms for diffusing Project results to some target audiences, conferences like those on Food Security Research in Southern Africa offer truly excellent occasions for encouraging on-going policy dialogue and analysis. The high percentage of SADCC government representatives who attended the conference in 1987 underscores this point. In this context the evaluation team believes in particular that the Project should consider giving greater emphasis to regional Food Security concerns in the Sahel, building on project results from Mali and Senegal and on the good relations the project has already developed with groups like the Club du Sahel and the CILSS. It would also be helpful for MSU to take the initiative in organizing a session on food security at a forthcoming annual meeting of the African Studies Association.
4. Greater efforts should be made to recruit more African
graduate students to the project, and to assign more Food Security
assistantships to the same. In addition alternative training
schemes outside of the formal degree program (e.g. short-term
training workshops such as those offered by the Harvard Institute
of International Development and the International Food Policy
Research Institute) should be considered.

5. The evaluation team also recommends that a complete disc copy of
the database generated under this project be placed on file at
PPC/CDIE, subject to standard acknowledgements and caveats.
The costs of preparing the data discs should be absorbed by project
core funding.

6. The project should secure wider dissemination of the type of
innovative materials on methodology for the design and implementation
of in-country research and surveys that was described in Part III.
For example, the BIFAD secretariat might consider sending copies
of such material to promote an exchange of experience and wider
sharing of the lessons that have been learned about carrying out
policy relevant research in developing countries.

7. The Project should devote some resources to developing concise
summaries (e.g. 2-3 pp) of major research findings for targeted
distribution to host country policy makers, U.S.A.I.D. personnel
Communicating important research results to policy makers in a concise and timely way is a direct, effective method of maintaining a high level of interest in food security issues, thus encouraging demand for food policy research and analysis.

8. Finally, the Project has placed great emphasis on the short and long-term aspects of food availability but devoted little attention to other critical food security issues that are of continuing interest to A.I.D. and many African countries (e.g., impact of food aid, determining national and regional priorities for research into new technologies, relationship between short-term policies and long-term agricultural and resource sustainability). The project has been spending less money than anticipated, and while this careful fiscal management should be applauded some existing resources could be applied to address these and other important issues.
Table I: Staffing Pattern of the Food Security for Africa Project

<table>
<thead>
<tr>
<th>Position Title</th>
<th>MSU</th>
<th>UZ</th>
<th>ST/CESA</th>
<th>ISRA/BAME</th>
<th>SESA</th>
<th>MINAG</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>MCH</td>
<td>HRE</td>
<td>BMKO</td>
<td>DAKAR</td>
<td>KGLI</td>
<td>MDSU</td>
<td></td>
</tr>
<tr>
<td>I. Administrative</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A. Director</td>
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<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2&lt;sup&gt;a&lt;/sup&gt;</td>
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<td>2</td>
<td>2</td>
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<td></td>
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<td>5</td>
</tr>
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<td>C. Local Staff</td>
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<td>9</td>
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<sup>a</sup> Included under IIA
### Table 2: Sources of Funding for the Food Security Project for Africa, 1984-1987 in $1000

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<th>Mod.No.</th>
<th>Date</th>
<th>ZMB</th>
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<th>Rwanda</th>
<th>Senegal</th>
<th>Somalia</th>
<th>Core</th>
<th>Total</th>
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<td></td>
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</tr>
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<td>8/87</td>
<td>458</td>
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<td>245</td>
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<td><strong>$693</strong></td>
<td><strong>$118</strong></td>
<td><strong>$363</strong></td>
<td><strong>$70</strong></td>
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<td><strong>$2600</strong></td>
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^a These amendments allowed for local cost financing of in-country research expenses (hence these figures include only partial financial support).
Table 3: Project Expenditures of the Food Security Project for Africa as of November, 1987 in $1000

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<tr>
<th>Inputs</th>
<th>Core</th>
<th>ZBEW</th>
<th>S.AFR</th>
<th>RWANDA</th>
<th>MALI</th>
<th>SMLA</th>
<th>SNGL</th>
<th>TOTAL</th>
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<tbody>
<tr>
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<td>$224.4</td>
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<td>$97.3</td>
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<td>$108.9</td>
<td>$1648.1</td>
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<td>60.5</td>
<td>119.3</td>
<td>31.5</td>
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<td>Benefits</td>
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<td>7.9</td>
<td>26.0</td>
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<td>9.4</td>
<td>4.7</td>
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<td>Trav/Allo.</td>
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<td>45.1</td>
<td>11.7</td>
<td>57.1</td>
<td>442.1</td>
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<td>$19.6</td>
<td>------</td>
<td>$50.1</td>
<td>$27.8</td>
<td>$11.3</td>
<td>$26.5</td>
<td>$167.6</td>
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<td>$83.0</td>
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<td>2.4</td>
<td>170.7</td>
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<tr>
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<td>21</td>
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Table 4: Working and Conference Papers by Country and Regional Origin

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<th>Senegal</th>
<th>Rwanda</th>
<th>Somalia</th>
<th>Reg'l</th>
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<td>7</td>
<td>--</td>
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<td>Conf.Paper II</td>
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<td>15</td>
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<tr>
<td>Conf.Paper III</td>
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<td>--</td>
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<td>--</td>
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<td>24</td>
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<tr>
<td>TOTAL</td>
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<td>9</td>
<td>7</td>
<td>8</td>
<td>7</td>
<td>18</td>
<td>91</td>
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### TABLE 5: WORKING PAPERS AND CONFERENCE PAPERS BY SUBJECT MATTER FOCUS

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<tr>
<th>Type of Documents</th>
<th>Technology</th>
<th>Institutional</th>
<th>Policy</th>
<th>Total</th>
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<td>Conference Papers III</td>
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### TABLE 6: GRADUATE STUDENTS TRAINED BY THE FOOD SECURITY PROJECT FOR AFRICA, 1985-1988

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<th>M.S.</th>
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<td>Senegal</td>
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<tr>
<td>Mali</td>
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<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Rwanda</td>
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<td>0</td>
</tr>
<tr>
<td>Somalia</td>
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### TABLE 7: NUMBER OF RESEARCH ASSOCIATES AND FSA SCHOLARS IN PARTICIPATING COUNTRIES

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<th>FSA Scholar</th>
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<tr>
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<td>4</td>
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<td>Somalia</td>
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<td>0</td>
<td>4</td>
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<tr>
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### TABLE 8: DATABASE ACCUMULATED BY COUNTRY ORIGIN

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<th>Somalia</th>
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<td>38</td>
<td>interviews</td>
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*Numbers in the table indicate the number of questionnaires completed.*
TABLE 9: DISTRIBUTION LIST OF WORKING PAPERS
PUBLISHED BY THE FSA MALI OFFICE

<table>
<thead>
<tr>
<th>Country/Office</th>
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<td>NIGERIA</td>
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<tr>
<td>FAO</td>
<td>1</td>
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<tr>
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</table>

TABLE 10: SEMINARS AND PRESENTATIONS MADE BY
FSA PROJECT AND COUNTRY STAFF, 1985-1987

<table>
<thead>
<tr>
<th>Audience</th>
<th>Zimbabwe</th>
<th>Mali</th>
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<td>--</td>
<td>1</td>
<td>2</td>
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<td>12</td>
<td>4</td>
<td>8</td>
<td>13</td>
<td>42</td>
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</table>
TABLE 11: PARTICIPANTS WHO ATTENDED REGIONAL CONFERENCES IN WHICH FSA PAPERS HAVE BEEN PRESENTED

<table>
<thead>
<tr>
<th>Institutional Affiliation of Participants</th>
<th>SADCC</th>
<th>U.S</th>
<th>Others</th>
<th>Total</th>
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<tbody>
<tr>
<td>Acad.Instn</td>
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<td>-</td>
<td>10</td>
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<td>IARCs</td>
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<td>2</td>
<td>7</td>
</tr>
<tr>
<td>Donor Agencies</td>
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<tr>
<td>Total</td>
<td>97</td>
<td>14</td>
<td>14</td>
<td>125</td>
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</tbody>
</table>
1. HOW WAS THE SPECIFIC RESEARCH AGENDA DEFINED TO WHAT DEGREE DID IT FOCUS ON AFRICAN DEVELOPMENT ISSUES OF DIRECT INTEREST AND IMPORTANCE TO USAID?

2. WHAT WAS THE ROLE OF THE USAID PROJECT MANAGERS IN DEFINING THE RESEARCH ACTIVITIES?

3. WHAT WAS THE USAID MISSION'S ROLE IN BACKSTOPPING PROJECT ACTIVITIES, AND HOW HEAVILY WAS THE MANAGEMENT BURDEN THIS REQUIRED?

4. HOW WAS THE HOST COUNTRY INVOLVED IN THE DESIGN AND EXECUTION OF THE RESEARCH?

5. TO WHAT EXTENT HAS NATIONAL AND REGIONAL CAPACITY BEEN STRENGTHENED FOR FOOD SECURITY RESEARCH AS A RESULT OF THIS PROJECT?

6. HOW HAS THE PROJECT CONTRIBUTED TO PUBLISH RESEARCH RESULTS ON A TIMELY BASIS?

7. HOW USEFUL DO YOU FEEL THE RESEARCH TO DATE HAS BEEN FROM THE VIEWPOINT OF OPERATIONAL AGENCIES, USAID AND THE HOST COUNTRY INSTITUTIONS?

8. HOW EFFECTIVELY HAS MSU DISSEMINATED THE RESEARCH RESULTS? DO YOU FEEL THESE HAVE HAD AN IMPORTANT IMPACT ON INSTITUTIONS, POLICIES, AND TECHNOLOGY CHOICES?

9. HOW HAVE EFFORTS AT HOST COUNTRY COLLABORATION AFFECTED THE CREDIBILITY OF THE RESEARCH PRODUCT AND THE IMPACT THE RESEARCH HAS HAD ON FOOD SECTOR DECISIONS?

10. HOW HAS THE PROJECT CONTRIBUTED TO HOST COUNTRY POLICY ANALYSIS CAPABILITY THROUGH IMPROVING SKILLS OF HOST COUNTRY PEOPLE, COLLECTING DATA WHICH WILL BE ACCESSIBLE AFTER THE PROJECT CEASES, AND INTRODUCING OPERATIONAL USEFUL AND RELATIVELY LOW COST AND APPROPRIATE ANALYTICAL METHODS WHICH WILL REMAIN WHEN THE PROJECT CEASES?

11. WHAT DO YOU BELIEVE THE PROJECT SHOULD GIVE MORE EMPHASIS TO IN THE FUTURE? LESS EMPHASIS TO?

12. HOW EFFECTIVELY HAVE THE MSU RESEARCHERS RESPONDED TO USAID NEEDS AND OBJECTIVES?

13. WHAT HAS BEEN THE PROJECT'S IMPACT TO DATE, AND WHAT ARE THE PROSPECTS FOR FUTURE IMPACT?

14. HOW WOULD YOU EVALUATE THE QUALITY, EXPERIENCE, AND PROFESSIONAL CAPABILITIES OF THE STAFF MEMBERS THAT MSU HAS ASSIGNED TO THE RESEARCH?

15. BASED ON YOUR EXPERIENCE, HOW WOULD YOU ASSESS THE OVERALL EFFECTIVENESS OF THE FOOD SECURITY IN AFRICA PROJECT WHEN COMPARED WITH OTHER AID-FUNDED PROJECTS? HOW CAN THE PROJECT BE IMPROVED?

16. WOULD YOU ANTICIPATE ANY ADDITIONAL BUY-INS AND/OR FUTURE DEMAND FOR THE WORK OF THIS PROJECT?

MISSION REACTION ON THESE ISSUES IS HINDLY REQUESTED, PREFERABLY BY NOVEMBER 14. WE REALIZE HOWEVER THAT THESE QUESTIONS MAY BE A BURDEN IN THE MISSION, BUT EMPHASIZE THAT WE WOULD SINCERELY APPRECIATE WHATEVER INFORMATION YOU CAN PROVIDE. THE EVALUATION TEAM WELCOMES ANY OTHER COMMENTS YOU WISH TO MAKE.
SIMILAR ANALYSES FOR OTHER CROPS.

9. THE GOVERNMENT SPONSORED THE ALL DAY SEMINAR. COUNTERPARTS WERE TRAINED TO GIVE THE PRESENTATIONS OF RESEARCH METHODOLOGY AND RESULTS. THESE FACTORS WERE LARGE RESPONSIBLE FOR HOLDING THE MINISTER'S ATTENTION FOR THE ENTIRE DAY AND CLOSING THE SESSION WITH A LIVELY DISCUSSION ON THE POLICY IMPLICATIONS OF STUDY RECOMMENDATIONS.

10. THE TWO COUNTERPARTS WORKED WITH THE MSU RESEARCHER FOR A PERIOD OF 10 MONTHS DURING WHICH THEY RECEIVED CONSTANT ON-THE-JOB TRAINING IN DATA COLLECTION, SURVEY DESIGN, ANALYSIS AND PRESENTATION OF RESULTS. FOR THIS REASON, THE COUNTERPARTS ARE ABLE TO DO RESEARCH ON OTHER CROPS THEMSELVES WITH MUCH LESS SUPERVISORY INPUT FROM EXPATRIATE TECHNICIANS.

11. A KEY ISSUE FOR THE PROJECT, BASED ON OUR EXPERIENCE, IS COUNTERPARTS. THE PROJECT CAN ALWAYS TRAIN THEM AND MAKE THEM PRODUCTIVE ANALYSTS, GIVER TIME AND HARD-ON EXPERIENCE UNDER SUPERVISION. THE PROJECT CAN NOT BY ITSELF FIND THESE COUNTERPARTS. NONETHELESS, FOR US THE ISSUE WAS WHETHER MORE COUNTERPARTS COULD HAVE BEEN TRAINED BY THE MSU RESEARCHER, BY LINKING MORE WITH THE UNIVERSITY AND/OR OTHER POSSIBLE COLLABORATING INSTITUTIONS. THIS IS A CHALLENGE WHICH WE ARE VIGOROUSLY TACKLING NOW. THE LESSONS LEARNED UNDER SUBJECT PROJECT ARE NOW LEADING US TO SEVERAL INNOVATIVE SOLUTIONS.

12. MSU RESEARCHERS, ESPECIALLY SHORT TERM CONSULTANTS FROM THE MAIN CAMPUS, HAVE RESPONDED VERY EFFECTIVELY TO OUR NEEDS AND OBJECTIVES, EVEN IN SUCH ADMINISTRATIVE FUNCTIONS AS PROCUREMENT FOR ASAP.

13. BY ITS VERY NATURE THE PROJECT WILL HAVE IMPACT OVER THE LONG Haul. WE ARE CONFIDENT THAT WE ARE GOING IN THE RIGHT DIRECTION WHEN WE CAN HOLD THE ATTENTION OF A BUSY MINISTER FOR A WHOLE DAY IN A SEMINAR. THE IMPACT OF SUBJECT PROJECT WILL MAKE ITSELF MORE EXPERTLY FELT IN THE SUCCESSOR ACTIVITY TO ASAP.

14. TOP NOTCH, FIRST RATE. THE GRADUATE STUDENT BECAME AN EFFECTIVE LEADER AND TEACHER BY THE BACK-STOPPING HE WAS GIVEN BY HIS PROFESSORS AND BY HIS OWN DRIVE AND ENERGY. LESSON: GRADUATE STUDENTS, PROPERLY SUPPORTED, CAN BECOME EFFECTIVE ADVISORS AND TRAINERS.

15. THE COMBINATION OF THE TWO PROJECTS, ASAP AND FOOD SECURITY, IS PERHAPS THE MOST EFFECTIVE PROJECT IN OUR PORTFOLIO. IT HAS SHOWN THAT A UNIVERSITY CAN BE A WILLING COOPERATOR WITH A PRIVATE FIRM UNDER A SUB-CONTRACT ARRANGEMENT. PERHAPS THE PROJECT CAN BE IMPROVED IN OTHER COUNTRIES BY THE MARRIAGE WE HAVE FOUND HERE.
A MAJOR WORKSHOP WITH PUBLISHED PROCEEDINGS WAS COMPLETED WITHIN THE FIRST YEAR OF PROJECT IMPLEMENTATION. THE ASSISTANCE OF THE PROJECT IN THE START-UP OF A WORKING PAPER SERIES IN THE DEPARTMENT OF PLANNING OF THE MDA HAS PROMPTED OTHER DONOR AGENCY PROJECTS IN THE DEPARTMENT TO PUBLISH RESEARCH FINDINGS ON A MORE TIMELY BASIS.

7. THE PROJECT'S RESEARCH FINDINGS TO DATE ARE PRELIMINARY. FULL ANALYSIS OF THE SURVEYS CONDUCTED SHOULD BE COMPLETED BY THE MIDDLE OF NEXT YEAR AND AVAILABLE TO OPERATIONAL AGENCIES.

8. MDA HAS DISSEMINATED PRELIMINARY RESEARCH RESULTS THROUGH THE PUBLICATION OF WORKING PAPERS, MARKET REPORTS, WORKSHOPS AND PROCEEDINGS OF WORKSHOP PAPERS. BECAUSE OF THEIR PRELIMINARY NATURE THESE DOCUMENTS HAVE HAD LITTLE IMPACT ON INSTITUTIONS AND POLICY.

9. COLLABORATION WITH VARIOUS DEPARTMENTS WITHIN THE MDA AS WELL AS WITH THE FACULTY OF AGRICULTURE HAS OCCURRED. THIS SEEMS TO HAVE BROUGHT INTEREST IN WHAT THE PROJECT IS DOING.

10. MOST CONTRIBUTIONS HAVE BEEN MADE TO NATIONAL FOOD SECURITY RESEARCH CAPABILITIES. THE SOMALI RESEARCHERS PARTICIPATING IN THE DAY TO DAY RESEARCH ACTIVITIES HAVE RECEIVED GOOD IN-SERVICE TRAINING. THE LONG-TERM CAPABILITY OF THE MDA TO CONTINUE SUCH RESEARCH HAS NOT BEEN ESTABLISHED IN THE SHORT TIME THIS PROJECT HAS BEEN OPERATING. INDIVIDUALS WORKING ON THE PROJECT HAVE GAINED NEW EXPERIENCES AND CAPABILITIES. KEEPING THESE TALENTS PRODUCTIVELY AT WORK IN THE MDA OR OTHER SOMALI INSTITUTIONS IS A MUCH LONGER TERM INSTITUTION BUILDING PROCESS.

11. IN THE FUTURE THE PROJECT SHOULD LOOK AT THE OTHER MAJOR CEREAL CURRENTLY BEING PRODUCED IN SOMALIA, SORGHUM IS THE ONLY CEREAL THAT IS GROWN ON FAINTED FARM. KNOWLEDGE OF THE PRODUCTION, MARKETING AND PAST STORAGE OF SORGHUM IS VERY IMPORTANT IN TERMS OF NATIONAL FOOD SECURITY.

12. THE RESEARCH AGENDA WAS DEVELOPED JOINTLY BY MDA, MDA AND USAID, IN AGREEMENT ON THE SUBJECT MATTER AND ON WHICH COMMODITIES AND GEOGRAPHICAL AREAS TO BE RESEARCHED, MDA RESPONDED TO USAID NEEDS.

13. THE PROJECT IMPACT HAS BEEN DISCUSSED ABOVE. IN THE FUTURE THE PROJECT SHOULD HAVE SOME IMPACT ON POLICY DECISIONS AS SURVEY RESULTS AND ANALYSES BECOME AVAILABLE.

14. MDA STAFF MEMBERS VISITING NOGADISHU ARE FULLY QUALIFIED, CAPABLE AND HAVE EXPERIENCE IN DEVELOPING COUNTRIES IN AFRICA.

15. THE FOOD SECURITY IN AFRICA PROJECT IS A LIMITED EIGHT IN SOMALIA. IT IS ON PAR WITH OTHER PROJECTS OF THIS TYPE.

16. USAID IS CURRENTLY CONSIDERING FURTHER PARTICIPATION IN THIS PROJECT. CRICER
E. O. l1lU: III

AlDAC
EVALUATION:
I. PROJECT EVALUATION

SUBJECT: FOOD SECURITY IN AFRICA PROJECT EVALUATION

REF: (A) STATE 35142, (B) STATE 39639

This cable transmits USAID inputs for subject evaluation. We regret delay in responding re (A) owing to the work load during the period of late November/December 1987. It should be noted that an explicit effort was made at the outset to design this activity so as to enhance its complementarity to the Institute Sénégalais de Recherches Agricoles (ISRA's) ongoing research program. This activity will allow ISRA to generalize more broadly about food security problems as a result of the survey's geographic coverage and the range of issues explored.

1. Our comments below are keyed to para 3A of the text in ref A.

A. MANAGEMENT AND PROCESS

1) The research agenda was established in close collaboration among the three parties: the GO (ISRA), NSU and USAID. Research issues were defined in terms of their relevance to the government's new agricultural policy (the IDP). The IDP sets forth the overall policy framework for the agricultural sector. USAID's program seeks to selectively assist the GO to realize some of its principal goals.

2) USAID project officers took an active role in defining the research goals, subsequently we met regularly with project researchers to explain specific interests and be briefed on research progress and preliminary findings.

3) USAID's role in back-stopping the project included reviewing the project proposal, discussing research findings and suggesting focus and emphasis with respect to specific issues. We obtained country clearances for the ISRA's principal researcher and the NSU on-campus back-stopping staff, procured a car, ten俊e, gas coupons and provided other administrative support. The buy-in arrangement to the centrally funded project minimized the administrative burden of the activity and allowed us to focus much of our quality management time on substantive issues.

4) ISRA participated in the design of the activity and provided two full-time professional counterparts who participated in both the field work and analysis.

5) National capacity in food security research has been strengthened in that a modality has been established for ISRA researchers to pursue a range of issues relating to household, regional and national food security research topics. Counterparts were trained in data collection and analysis, computer applications and report writing and presentation.

6) Utilizing a model developed by our bilateral project with the GO, research results were published in the form of research notes and distributed through an established GO channel. This channel consists of an interministerial committee for review of ISRA's research results and consists of officials from several ministries of the GO who have policy formulation responsibilities.

7) To date the project has provided USAID with useful descriptive analysis of current interest, e.g., cereal marketing patterns in survey area, farmers' access to and use of agricultural inputs, farmer and market perceptions of opportunities created by the IDP. Significant analysis remains to be done including the extrapolation of the policy relevance of principal findings and synthesis of overall conclusions. To this end, ISRA and the GO are planning a policy conference/workshop in June 1988 to present research results to GO, USAID and other donors. We see in this policy conference a valuable medium for the dissemination of the project results.

8) To date, only preliminary results are available from the research, and draft reports have had limited circulation in ISRA and USAID. However, the discussions of these preliminary results suggest their potential usefulness and we believe there will be wide interest in the final research products. For this reason, we have encouraged the NSU and ISRA to organize the policy conference cited in the para above.

9) NSU and ISRA already enjoy considerable credibility among mid-level officials involved in policy formulation due to their work under our bilateral project which agricultural research and planning. Research products under the food security project have not yet been widely distributed outside of ISRA. The policy conference will be the occasion for this dissemination.

10) Frest, two counterparts worked with the NSU principal researchers for a period of 14 months during which they received constant on-the-job training in survey design, data collection, analysis and presentation of results. As a result of this skills building, one of the researchers will participate in a major research project on agricultural price policy to be financed by USAID and carried out with the assistance of IFPRI. Second, the data base has been cleared and will be available for future analysis; this is particularly useful because the research was designed to complement research being carried out in the principal cereals production zone by ISRA with NSU assistance under the agricultural research and planning project.

11) While it may be premature to make judgments, preliminary indications suggest that the work has been very good at the descriptive level, but that more policy oriented analysis is needed. We expect it will be
FORTCOMING AS THE ACTIVITY REACHES ITS FINAL STAGE OF ANALYSIS AND REPORT WRITING.

(12) TO DATE, MSU RESEARCHERS, ESPECIALLY SHORT-TERM CONSULTANTS FROM THE MAIN CAMPUS, HAVE BEEN VERY RESPONSIVE TO OUR NEEDS AND OBJECTIVES.

(13) TO DATE, THE PRINCIPAL IMPACT OF THE PROJECT HAS BEEN ON MSU'S INSTITUTIONAL CAPABILITY TO DO FOOD SECURITY RESEARCH. IMPACT ON POLICY MAKERS AWAITS COMPLETION OF POLICY ORIENTED ANALYSIS. THE QUESTION OF THE PROJECT'S IMPACT CAN BE BETTER ANSWERED A YEAR OR SO FROM NOW.

(14) THE PRINCIPAL INVESTIGATOR ASSIGNED TO THE ACTIVITY ON A LONG-TERM BASIS WAS AN MSU DISSERTATOR. HE DISPLAYED SOUND PROFESSIONAL SKILLS AND WORKED EFFECTIVELY WITH MSU COUNTERPARTS. MSU FACULTY STAFF BACK-STOPPED THE PROJECT PROVIDED IMPORTANT AND HIGH-QUALITY INTELLECTUAL SUPPORT, HELPING TO SHARPEN DESIGN METHODOLOGY AND SUGGEST PRODUCTIVE WAYS TO APPROACH AND INTERPRET THE DATA.

(15) THE COLLABORATIVE APPROACH THAT HAS CHARACTERIZED THE ACTIVITY HERE SINCE ITS INCEPTION IS PERHAPS THE MOST EFFECTIVE WAY FOR INTEGRATING POLICY RESEARCH PROGRAMS AND INSTITUTION BUILDING. IT HAS DEMONSTRATED THE BENEFITS OF BUILDING ON LONG-TERM RELATIONSHIPS BETWEEN RESEARCH INSTITUTIONS. THESE BENEFITS INCLUDE THE CAPACITY TO WORK TOGETHER BASED ON MUTUAL RESPECT, GREATER EFFICIENCY IN START-UP AND EXECUTION BASED ON THE INSTITUTIONS' MUTUAL FAMILIARITY WITH EACH OTHER, AND PERHAPS MOST IMPORTANT, BUILDING ON ESTABLISHED RELATIONSHIPS BETWEEN RESEARCHERS LEADING TO FREQUENT AND OPEN INTELLECTUAL EXCHANGES.

(16) MISSION PLANS TO CONTINUE TO SUPPORT APPLIED POLICY RESEARCH RELEVANT TO FOOD SECURITY ISSUES THROUGH OUR EXISTING PORTFOLIO AND WITH A NEW INITIATIVE FOCUSSING ON PRICE POLICY. WITH THE COMPLETION OF WORK UNDER OUR BUY-IN TO THE FOOD SECURITY IN AFRICA PROJECT, THE MISSION REGARDS THIS PHASE OF OUR SUPPORT FOR FOOD SECURITY RESEARCH COMPLETED AND WE DO NOT ANTICIPATE FURTHER BUY-INS TO THIS PROJECT. WALKER
FOOD SECURITY IN AFRICA COOPERATIVE AGREEMENT

Between

Africa Bureau, Office of Technical Resources, AID
Bureau of Science and Technology, Office of Rural and Institutional Development, AID
Department of Agricultural Economics, Michigan State University

AGENDA

Mid-Term Evaluation

October 13, 1987
East Lansing, Michigan
Monday, October 12, 1987

PM: Arrival: Yates Flight NW 1393 at 6:04 p.m., Lucas NW 2737 at 8:30 p.m., Johnston, United 2788 at 5:45 p.m.
Met at airport by Mike Weber, taken to University Inn (351-5500)

Evaluation Team Members:

Bruce F. Johnston  
Professor, Food Research Institute  
Stanford University

Michael Yates  
Food Security Project Manager  
Africa Bureau, AID/Washington

Ernesto Lucas  
Food Security Project Manager  
Science and Technology Bureau, AID/Washington

DINNER: Open

Evening: Evaluation Team Preparation Meeting, University Inn

Tuesday, October 13, 1987

8:15  Pick-up at University Inn by Eric Crawford

8:30 - 9:30  Review Evaluation Objectives and Schedule - Room 16, Ag. Hall (Weber)

9:30 - 10:00  BREAK - Coffee with Project Staff in Room 16, Ag. Hall.

10:00 - 11:00  Project Overview and General Meeting with Project Staff, Room 11, Ag. Hall. (Staatz, Shaffer, Crawford, Holtzman, Riley, Munn, DeFouw, Sawdon, Starr, Rohrbach, Dione, Loveridge, Rwamasirabo, Teft, Baird, Chopak, Saade, and Weber).

11:00 - 12:00  Zimbabwe Briefing - Room 11, Ag. Hall. (Weber, Shaffer Riley, Kingsbury)

12:00  Lunch - Open

1:30 - 2:00  Zimbabwe - Room 11, Ag. Hall - Weber, Chopak - Household Food Security/Sorghum Research

2:00 - 2:30  Zimbabwe - Weber, Rohrbach - Maize Research

2:30 - 3:00  Zimbabwe - General Discussion on Zimbabwe

3:00 - 3:30  BREAK

3:30 - 5:00  Round Table Discussion, "Strategies to Increase Income in Rural African Households," Room 16, Ag. Hall (Open to all Faculty and Graduate Students)
5:00 Return to University Inn (Crawford will drive)

Evening Open

Wednesday, October 14, 1987

8:15 Pick up at University Inn by John Holtzman
8:30 - 9:30 Mali Briefing - Room 11, Ag. Hall (Staatz, Dione, Weber, Saade)
9:30 - 10:00 Break - Coffee, Room 4, Ag. Hall
10:00 - 12:00 Mali Briefing continuation. Room 11, Ag. Hall
12:00 Lunch - Open
1:30 - 3:00 Rwanda Briefing - Room 11, Ag. Hall (Loveridge, Rwamasirabo, Weber)
3:00 - 3:30 Break
3:30 - 5:00 Somalia Briefing, Room 11, Ag. Hall (Holtzman, Weber, Baird)
5:00 Return to University Inn (Holtzman will drive)

Evening Tentative - Dinner at University Club (Staatz, Crawford, Holtzman, Riley, Review Team)

Thursday, October 15

8:15 Pick up at University Inn by John Staatz
8:30 - 10:00 Senegal Briefing, Room 11, Ag. Hall (Crawford, Holtzman, Weber, Teft)
10:00 - 10:30 Break
10:30 - 11:30 Les Manderscheid and Stan Thompson, Chair and Associate Chair of the Department (202 Ag. Hall)
12:00 Lunch
1:30 - 2:00 Tentative - Don Isleib, Director, Institute of International Agriculture, Room 324, Ag. Hall.
2:00 - 2:30 Data Processing/Analysis Support Team, Room 101, Ag. Hall (Weber, Wolf, Beaver)
2:30 - 5:00 OPEN. Room 202, Ag. Hall
6:20 Depart. Yates and Lucas, NW Flight #
**UZ/MSU Food Security Project**

**USAID Evaluation Team**

* Erneseto Lucas, Bureau for Africa, USAID/Washington;
  * Michael Yates, Bureau for Science and Technology, USAID/Washington;
  * Professor Bruce Johnston, Food Research Institute, Stanford University

**Sunday, Nov 1**

Team arrives at 0605 and met by C.K. Eicher.

1600-1730

Orientation Session, Holiday Inn Veranda.

**Nov 2-5**

Attend UZ/MSU Conference at Holiday Inn. Working luncheons will be scheduled to meet network researchers before they depart Harare on Friday.

**Monday Nov 2**

1230-1400, Lunch with Professor Martin Kyomo, Director, Southern Africa Center for Cooperation in Agricultural Research (SACCAR), Gaborone and John Dhliwayo.

**Tuesday Nov 3**

1500

Lunch with John Dhliwayo, Head, SADCC Food Security Administrative Unit, Harare (tentative)

**Wednesday Nov 4**

1230-1400, Lunch with University of Dar es Salaam Research Team, Professor Benno Ndulu, and colleagues.

**Thursday Nov 5**

1230-1400, Lunch with University of Malawi Research Team.

* The MSU Food Security Cooperative Agreement is being evaluated by a three member team chosen by USAID/Washington. The team spent three days at MSU and will visit Mali following their visit to Zimbabwe. The purpose of the mid-term evaluation is to determine whether the contract objectives are being achieved and to recommend needed changes in the research programme and management of the project.
<table>
<thead>
<tr>
<th>Time</th>
<th>Activity</th>
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</thead>
<tbody>
<tr>
<td>0745</td>
<td>Picked up by C.K. Eicher at Holiday Inn.</td>
</tr>
<tr>
<td>0800-0850</td>
<td>Mandivamba Rukuni, Co-Director, UZ/MSU Food Security Project, Room DF11, Ag. Econ. Dept.</td>
</tr>
<tr>
<td>0850</td>
<td>Rukuni will take the team to the Ministry of Agriculture.</td>
</tr>
<tr>
<td>0900-0945</td>
<td>Dr. Sam Muchena, Deputy Secretary, Ministry of Lands, Agriculture and Rural Resettlement (Dr. Muchena is responsible for SADCC's Food Security Portfolio).</td>
</tr>
<tr>
<td>0945</td>
<td>Picked up by C.K. Eicher.</td>
</tr>
<tr>
<td>1000-1230</td>
<td>Discussions with SADCC Food Security Project Manager and staff, Security House.</td>
</tr>
<tr>
<td>1230</td>
<td>Taxi to Holiday Inn for Lunch</td>
</tr>
<tr>
<td>1350</td>
<td>Taxi to USAID, 1 Pascoe Avenue (corner of Mazoe and Pascoe Avenues)</td>
</tr>
<tr>
<td>1400-1530</td>
<td>Eric Witt, ADO, USAID and Pamela Hussey, Deputy Director, USAID.</td>
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<tr>
<td>1530</td>
<td>Taxi to UZ.</td>
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<tr>
<td>1600-1700</td>
<td>Godfrey Mudimu, Chairman, Department of Agricultural Economics and Extension, Room DF11, Ag. Econ. Department.</td>
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<tr>
<td>1700</td>
<td>Taxi to Holiday Inn.</td>
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<td><strong>Saturday Nov 7</strong></td>
<td>Field trip to Magwende Communal Area.          Charles Mbwanda, Godwill Makombe, David Rohrbach and Jim Shaffer.</td>
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<td><strong>Sunday Nov 8</strong></td>
<td>Optional meeting with Weber, Bernsten and Eicher (6:00-8:00 PM)</td>
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<tr>
<td><strong>Monday Nov 9</strong></td>
<td>Taxi to UZ Faculty of Agriculture - meet in Bullman Room.</td>
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</tbody>
</table>
0900-1000 Household Food Security Team:
Mudimu, Bernsten, Mbwanda, Zinyama, Campbell, Chigume and Govereh.

1000-1030 Wheat Research Team:
Solomon Tembo, Michael Morris and Peter Ngobese.

1030-1200 Trade Research Team:
Shaffer, Davies, Mlambo, Kingsbury, Rusike.

1200-1210 Visit Ag. Econ. Documentation Center: M. Shamu

1210-1245 Visit Micro Computer Center and Food Security Project Office:
Lovemore Madziwanzira, Maxwell Chiwashira, Rick Bernsten, Thembi Sibanda.

1245-1400 Lunch at Senior Common Room with Rick Bernsten and Russ Erickson, Team Leader, MSU/PSU Project.

1400-1500 Debriefing with M. Rukuni; R. Bernsten, and J. Shaffer.

1500 Return to Holiday Inn.

Tuesday Nov 10 Open for Evaluation Team to read and prepare report.

Wednesday Nov 11 Depart for Malawi.

Note: Dr. Kay Muir-Leresche is on sabbatical leave. She will attend the conference and would like an opportunity to meet with Bruce Johnston.

30/10/87
UNIVERSITY OF ZIMBABWE

THIRD ANNUAL CONFERENCE ON FOOD SECURITY RESEARCH IN SOUTHERN AFRICA

HOLIDAY INN, HARARE

1-5 NOVEMBER, 1987

Sunday, November 1

Participants arrive and register

Monday, November 2

Co-Chairpersons, Mandivamba Rukuni, University of Zimbabwe and John Dhliwayo, SADCC Food Security Administrative Unit.

0800-0900
Local Participants Register

0900
Welcome - Vice Chancellor - Professor W. Kamba

0910
Key note address: Dr Simba Makoni, Executive Secretary, SADCC

1000-1030
TEA

1030-1230
SADCC Food Security Projects 2 and 8

1230-1400
LUNCH

1400-1530
SADCC Food Security Projects Nos 6 and 7

1530-1600
TEA

1600-1730
SADCC Food Security Projects 5 and 9

1830-2000
Reception
TUESDAY, NOVEMBER 3

Chairperson:

Theme: Market Liberalization and Food Security

I Tanzania, Benno Ndulu and Haidari Amani, Economics Department, University of Dar Es Salaam

TEA

II Malawi, B. Kandoole and B. Kaluwa, Economics Department, University of Malawi, Zomba/

Lunch

III Zimbabwe: Robb Davies and K. Mlambo, Economics Department, University of Zimbabwe.

TEA

IV Mali, Josue Dione, Institute of Rural Economy and John Staatz, Michigan State University, East Lansing
WEDNESDAY, NOVEMBER 4

THEME: Nutrition and Access to Food

I Mrs Maribe, Chief Nutritionist, Ministry of Health, Gaborone, What Should be the Nutrition Research and Policy Agenda of SADCC and SADCC Member States?

TEA

II Mr Makobi, Head, Food Resources Department. Ministry of Local Government, Gaborone, Botswana's Approach to Increasing Access to Food in Urban and Rural Area

LUNCH

III Access to Food in Food Surplus Countries

TEA

IV What can be Done to Convert Grain Surpluses in SADCC to Jobs (Food for Work, Pula for Work)?
THURSDAY, NOV. 5

THEME: Household Food Security in Low Rain Areas
Where Maize is Replacing Sorghum and Millet.

I  Historical Perspective?
    TEA

II  ICRISAT's Approach to
    LUNCH

III  Planned Research in Household Food Security in
    Botswana and Zimbabwe.
    TEA

IV  Planned Research on Sorghum Processing in Botswana
    and Zimbabwe