



**Implementation Report on the
*Africa: Seeds of Hope Act***

*Submitted by USAID
May 1999*



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Africa: Seeds of Hope Act: USAID's Implementation Report

What Difference Do the Africa Food Security Initiative (AFSI), the *Africa: Seeds of Hope Act*, and U.S. Foreign Assistance for African Agriculture Make?

- ? Number of small-scale farmers in Uganda benefiting from income-enhancing USAID support has tripled (to 250,000 farmers) with the additional resources provided by AFSI.
- ? Successful approaches to develop and support farmer organizations with the assistance of U.S. cooperative development organizations have been replicated in most USAID programs, with support almost doubling (to \$41 million) since 1995.
- ? USAID programs in Mozambique, Malawi, and Uganda have increased the incomes of small-scale farmers; these programs are being expanded with AFSI resources.
- ? New food security programs have started in FY 1999 with AFSI resources in Liberia, Rwanda, and Zimbabwe.
- ? An ongoing research coordination mechanism between USAID, USDA, other donors, U.S. universities, international agricultural research centers, and African agricultural technology institutions has been strengthened through the Special Program for African Agricultural Research and the African-led Forum for Agricultural Research in Africa.
- ? Malian farmers and NGOs are leading the annual agricultural research priority-setting process so that that process meets their needs.
- ? Tanzanian farmers now own the cash crop research program, while the Tanzanian government's financial commitment to agricultural research is entirely focused on those food crops for which no private funding is available to support research costs.
- ? USAID support for microenterprise programs in Africa has expanded from \$17 million to \$26 million since 1995.
- ? Private sector development programs with very limited rural focus in South Africa and Tanzania are being modified to address the needs of rural poor people and small-scale farmers in FY 1999.
- ? Title II non-emergency programs for development purposes in Africa have increased by almost 50 percent since 1995-96.
- ? USAID/Mali is assisting the Malian government in identifying causes for increasing malnutrition in the presence of growing rural prosperity.

What Will USAID Do to Implement the *Africa: Seeds of Hope Act*?

- ? Seek to expand AFSI to four more countries where existing USAID programs and expertise can be built on for maximum effect.

- ? Work with USDA and U.S., international, and African partners to identify better and faster ways to get improved crop techniques and seeds to farmers.
- ? Review USAID's current microenterprise program and focus to expand services to African households and the rural poor.
- ? Assess and make recommendations regarding producer cooperative development activities.
- ? Develop an Africa strategy for agriculture that emphasizes support for small-scale farmer agriculture and food security.
- ? Continue to identify expanded opportunities for Title II NGO development programs in Africa.

What Is Needed for Full Implementation of the *Africa: Seeds of Hope Act*?

- ? Significant investment of energy and resources in building the capacity of public, private, and NGO institutions in Africa.
- ? Intense time and consultation to establish priorities and consensus in planning an Africa microenterprise strategy with U.S., international, and African partners.
- ? Resources that have not been appropriated to mobilize the U.S. land grant university system in support of capacity building in African agricultural technology development and extension.

Executive Summary

This implementation report on the *Africa: Seeds of Hope Act* identifies early progress in implementing the sections of the Act that USAID is required to report on, related to the Africa Food Security Initiative (Sec. 101), microenterprise development (Sec. 102), development of cooperatives and producer groups (Sec. 103), agricultural research and extension (Sec. 104), and non-emergency food programs (Sec. 201). In addition, the report notes progress in assisting the Overseas Private Investment Corporation (OPIC) to identify ways to meet its responsibilities under the Act.

The *Africa: Seeds of Hope Act* affords a welcome opportunity to expand and replicate the successful approaches that USAID, with U.S., African, and international partners, has taken in the recent past to address issues of rural income and food security. Our most recent review of successful rural development and agriculture programs in Africa found several elements common to all of them. These are programs in which, even under severe resource constraints, large numbers of African rural farmers and poor people have increased their access to credit, seeds, and markets; their food production; and their incomes in countries as diverse as Mali and Mozambique, and Uganda and Malawi. The common elements of all of these successful programs reinforce the key sections of the *Africa: Seeds of Hope Act*: a) policies that benefit farmers and rural people; b) support to farmers' groups and cooperatives; c) support to African commercial ventures serving the needs of farmers and rural people; d) increasing access to credit, markets, and agricultural research, extension, and technology; and e) partnerships with a wide range of NGOs, cooperative development organizations, land grant universities, international agriculture centers, and private firms.

USAID intends to develop an Agriculture Sector Strategy for Africa to capture the elements of success of these programs and to consider how to even better achieve the objectives of the *Africa: Seeds of Hope Act*. The strategy will also guide the implementation of those Africa-related components of the U.S. government's Food Security Action Plan for which USAID is responsible.

USAID faces two problems, however, in implementation. First, many of the things we can and will do require sustained attention—and more resources—for one of Africa's biggest challenges: the problem of limited institutional capacity. U.S. universities and NGOs are among the key institutions needed to help build African capacity, but, in extensive consultations with them, they repeatedly tell us that they cannot do so without additional resources. Second, without a significant increase in the 150 Account overall, USAID will simply be unable to effect significant expansion in the areas affecting agriculture, microenterprise, and rural development. The Administration's FY 2000 budget, for example, includes a 50 percent expansion in resources for the Africa Food Security Initiative. This expansion can only take place with the planned expansion overall in the 150 Account. To expand AFSI without an overall expansion in the 150 Account would reduce other programs that are of critical help to the rural poor, in particular, education, better governance, and economic reform programs.

The Africa Food Security Initiative (AFSI)

AFSI is a critical means to achieve the objectives of the *Africa: Seeds of Hope Act*. AFSI is in its second year of implementation, having expanded from five to eight countries. The overall goal of AFSI is to reduce childhood malnutrition by increasing rural people's incomes. AFSI addresses this goal in three ways: by increasing agricultural production; improving market efficiency and access to markets; and expanding trade and investment in agriculture. Progress has already been noted even though AFSI was only funded in its first year (FY 1998) at a pilot level. For example, Uganda expanded a successful field demonstration program from 8 to 16 districts using AFSI funding; a Malian market information system that provides regional and international information to farmers was funded through AFSI and has supported sustained growth in farmer export income in that country. The President's FY2000 budget request provides funding for a 50 percent increase in AFSI in to permit expansion to several additional countries. The expansion in FY 1999 and FY 2000 will permit USAID to start agriculture programs in countries where they have not been possible for a number of years.

Microenterprise Development

Full compliance with the Act's microenterprise provisions will take time beyond the submission period for this report. USAID will engage in joint planning with a wide range of other donors, NGOs, and African groups for a plan for microenterprise in Africa. USAID has taken the initial steps to open a dialogue on such joint planning, but development of a plan that all partners "own" will take additional time. The June 1999 meeting of the Consultative Group to Assist the Poorest in Abidjan will afford USAID the opportunity to begin to establish consensus with our key partners on an approach to developing a strategy and a specific timeframe. USAID will also reexamine microenterprise in rural areas, microcredit for agricultural production, and shifting the balance of microenterprise activities toward microfinance in particular. The importance of these issues merits a serious review, which will extend beyond the current reporting period. We already recognize, however, that some of the shifts mandated by the legislation require a significantly greater effort in increasing the capacity of microlending institutions, NGOs, and microcredit users in order to bear fruit. Such capacity requires a serious long-term commitment and investment of resources.

Producer-Owned Cooperative Marketing Associations

With the withdrawal of many African government support services in rural areas, farmers must organize themselves to get remunerative prices and adequate services. USAID—working through a number of U.S. NGO partners, in particular, the U.S. cooperative development organizations—has helped organize female and male farmers into associations in over 16 countries in the past few years. This has provided farmer members with access to the agricultural inputs they need, as well as to new markets and income-earning opportunities. We have seen an expansion in expenditures for these activities, and expect this will continue in future years as the Act is implemented. In FY 1999 USAID will fund a review of lessons learned from these approaches.

Agricultural Research and Extension

The Act calls for closer coordination in agricultural research and extension in Africa. USAID and USDA have a strong partnership in agricultural research in Africa. USDA technical staff, land grant university faculty, and international center scientists provide very effective participation in a longstanding Africa-wide research coordination mechanism in Africa. Working through this mechanism, USDA and USAID have helped establish or improve a number of networks of scientists working on agricultural problems of critical importance to millions of African partners. The *Africa: Seeds of Hope Act* galvanized USAID and USDA to host an intensive partner consultation to identify a number of new areas in which additional joint cooperation could yield higher impact—in both research and extension and in expanding commercial opportunities for African small-scale farmers. It is the strong conclusion of our U.S., African, and international partners, however, that long-term commitment and capacity building—two key areas in which agricultural and university resource constraints have led to sharp declines—are absolutely essential for such coordination to have the maximum impact.

Expanding Development Food Aid in Africa

Since the promulgation of the Agency's food aid and food security policy paper in 1995, USAID has made an effective effort to increase the share of Title II programs having a direct impact on agriculture and nutrition. The recent expansion in Title II development programs for Africa will be continued, with additional flexibility to permit a smoother relief-to-development transition in some countries (such as in Rwanda and Angola Title II programs approved this fiscal year). However, the cost of doing business in Africa is high, there is relatively underdeveloped institutional capacity, and NGO local partners are often not as strong as they are in other parts of the world. This means that USAID's efforts to increase capacity of both U.S. and local NGOs in Africa continue to be essential to the sound expansion of Title II development programs—especially in support of agriculture, nutrition, and rural development.

Supporting OPIC's New Mandate

While not required by the Act to report on Section 104, USAID has helped assist OPIC in identifying possible ways it might effectively fulfill its mandate to work with rural development organizations serving African farmers, including possible mechanisms and sources of support to permit on-lending by OPIC to institutions that serve the needs of rural people and small-scale farmers.

Conclusion

In reviewing early implementation of the *Africa: Seeds of Hope Act*, a series of conclusions common to most of the sections of the Act has emerged: USAID is already having an impact on improving the lives of large numbers of rural Africans, given limited resources; USAID and its partners can do more by shifting some resources and efforts

toward Africa and toward rural concerns; in most cases, however, such shifts are constrained by the capacity of African and U.S. partners to do more in Africa. An effective effort to increase capacity takes significantly higher resource levels. In the recent past, with constrained resource levels, the donor community—including USAID—have chosen to put those resources in areas yielding shorter-term impacts. The resources required for further expansion beyond what is reported here, and especially to address the African capacity problem, cannot be carved out of other areas or other parts of the current USAID budget or other areas of the 150 Account. A concerted effort to make a major expansion in the U.S. government’s ability to address the goals of the *Africa: Seeds of Hope Act* will require an expanded foreign assistance budget.

Illustrating the *Africa: Seeds of Hope Act*—Uganda

Many of USAID's agriculture programs are successfully implementing the key strategies of the *Africa: Seeds of Hope Act*. Uganda illustrates that increasing agricultural productivity of smallholder farmers and bringing about rural development does improve the lives of poor Africans. Despite recent difficulties, Uganda has sustained high growth rates; real GDP increased in 1998 by 5.5 percent. Incomes are increasing in rural areas. And these increases are being translated into improvements in children's well being; chronic malnutrition is declining.

USAID's strategy, which the Africa Food Security Initiative has expanded, contributes significantly to these improvements. USAID's program has increased agricultural productivity in key food and export crops; improved poor people's access to rural financial services; and is helping Uganda to create a strong private sector and business-friendly environment. USAID activities reach about 250,000 farmers and 60,000 microbusinesses, of which 70 percent directly involve women. USAID's portfolio reflects the importance of the *Africa: Seeds of Hope Act*:

Through the African Food Security Initiative (AFSI), USAID has been able to triple the number of small-scale farmers being introduced to the use of improved seeds and fertilizers, resulting in a tripling of demand for these agriculture inputs. And AFSI has allowed USAID to address the needs of some of the poorest in Uganda, those in the North who cannot consistently farm due to conflict and instability.

Farmer associations are the engines of these productivity improvements. Over 10,000 farmers have increased milk production up to 50 percent through producer-owned dairy cooperatives. One farmer association USAID has assisted exported 203 tons of hot peppers per week in its first year, 1998.

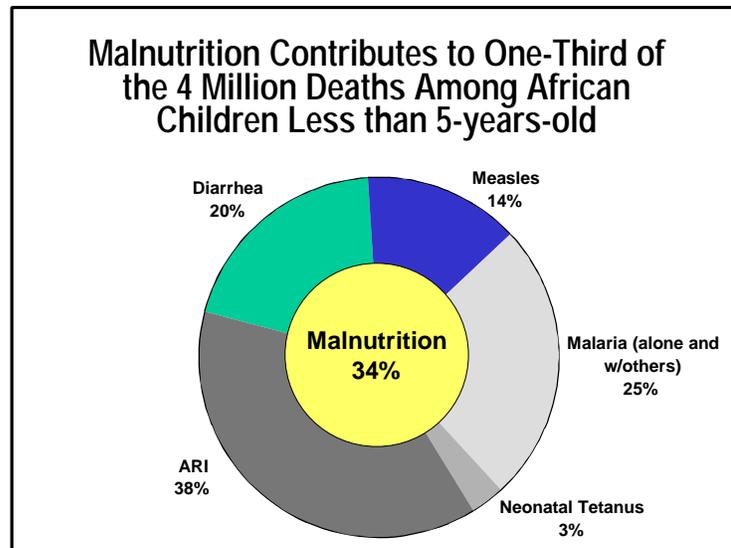
Microfinance services continue to expand in Uganda and contribute to the growth of the rural sector. Working through 63 financial institutions to reach microenterprises in rural areas, USAID was able to report that in 1998 the number of borrowers tripled and savers doubled.

The USAID Title II program is an integral part of USAID/Uganda's agricultural activities. This program introduced a new disease-resistant cassava in 1997, which has enabled the sector to make a remarkable recovery with targets exceeded fourfold.

Few of the results described above could have been achieved without investment in national and regional agricultural research. The successes described above from improved agronomic practices and crop breeding are the culmination of investments by USAID in agricultural research.

I. Introduction

Africa faces many serious problems. Malnutrition and childhood deaths are among the most critical problems. As can be seen in the figure below, of the roughly four million children under five who die each year in Africa, over a third of them die of causes related to malnutrition. These are for the most part not children caught in situations of war or famine, but rather they are children whose families simply don't have enough money or food to provide a healthy, balanced diet.



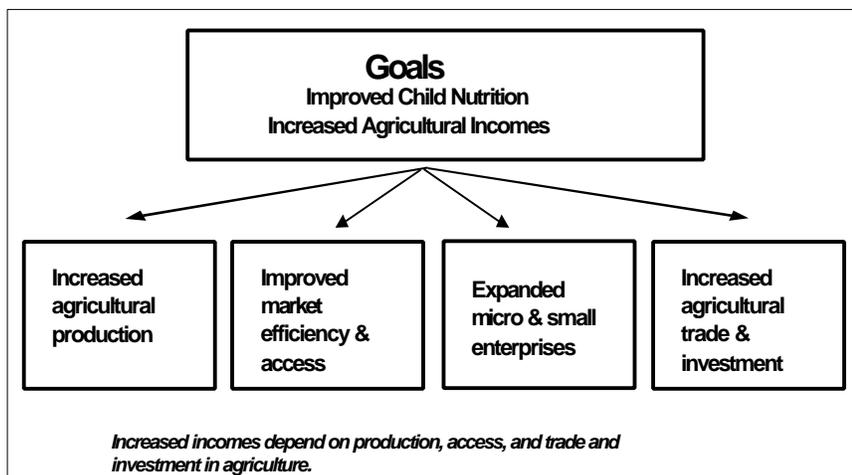
Projecting recent trends into the next generation, Africa is the only region in the world where malnutrition and poverty are expected to increase. The U.S. Department of Agriculture, the Food and Agriculture Organization, and the International Food Policy Research Institute all project significant increases in the numbers of malnourished people and in food shortages in Africa in the early 21st century. These trends can be reversed (just as they were in Asia a generation ago). Reversing them requires a solid analysis of the problem, an approach to solve it, and the resources required to make that approach effective and widespread.

Malnutrition has a number of causes; one of the most important is inadequate or unbalanced food consumption. Providing poor rural families the opportunity to produce more of their own food, or to earn income to buy more food, is essential to reduce malnutrition in Africa. USAID's Africa Food Security Initiative (AFSI) and the *Africa: Seeds of Hope Act* provide a framework for understanding and addressing the problem of inadequate income and food for Africa's rural poor people. This framework (see below) starts with the ultimate goal of agriculture and rural development in Africa: to reduce childhood malnutrition by increasing the incomes of poor rural people.

Several sets of actions are required to reach that goal. These are actions in which USAID has had significant success, but we can do more and we can do better.

These actions include:

- ? Increasing agricultural production (not just food production because the sale of cash crops can increase a poor family's income);
- ? Improving market efficiency and access to markets (efficient markets mean food costs less to the consumer and the farmer gets a greater share of the final sale price; access to markets means that farmers have more choices about where to sell their food, and rural consumers have more opportunities to buy cheap and healthy foods);
- ? Expanding agricultural trade and investment; small-scale farmers and rural consumers have benefited significantly from increased trade in agricultural products, and increased investment (by farmers, domestic enterprises, and international firms) is required to increase the productivity, competitiveness, and income coming from African agriculture; and
- ? Creating new micro and small enterprise opportunities in rural areas, to create new sources of income for poor rural people.



USAID mission programs in Africa are already making major inroads in all of these areas. USAID programs have significant local and, in a few cases, national-level impacts. But resources are inadequate to meet the U.S. government's goal in the Food Security Action Plan (FSAP) of reducing hunger by 50%. Recent analysis commissioned by USAID as background for the Food Security Action Plan suggested that reversing current trends and cutting the number of hungry people in half by the year 2015 would cost \$625 million per year in Africa beyond currently planned resource flows. How would USAID deploy additional resources strategically? USAID would expand activities within the broad strategic areas outlined in the U.S. Food Security Action Plan as the four ways with the highest potential to reduce malnutrition at least cost: agricultural research, rural roads, income-earning opportunities, and women's education.

At more modest budget levels, such as the level in the Administration's FY 2000 foreign affairs request, USAID would limit its interventions to the approaches identified in the AFSI and *Africa: Seeds of Hope* framework. Appropriation of the FY 2000 foreign affairs account at the Administration request level would permit some expansion of AFSI, targeted on small-scale farmers and the rural poor. The Administration request level would permit expansion of AFSI to several new countries (such as Zambia, Ghana, Kenya, and Tanzania) in which USAID expertise and experience could permit a rapid scaling-up for food security impact. Additional resources in FY 2001 could permit a more concerted program of capacity building, especially mobilizing U.S. land grant universities and NGOs in strengthening capacity of their partner African institutions in their ability to identify and address the needs of Africa's rural poor and small-scale farmers.



I. Africa Food Security Initiative

A. Background

The Africa Food Security Initiative (AFSI) was first conceived as a multiyear Administration response to a worldwide recognition of the urgent need to reverse the downward trend of funding for development of African agriculture. President Clinton underlined the importance of food and nutrition in Africa when he announced the Africa Food Security Initiative in Uganda during his historic 1998 trip to Africa. AFSI promotes a broad, renewed donor and African commitment to agriculture and food security to improve childhood nutritional status and increase rural incomes.

AFSI is a critical means to achieve the objectives of the *Africa: Seeds of Hope Act*. The principles and objectives of AFSI are consistent with the Act. Its objectives aim at increasing incomes and improving child nutrition through increasing agriculture and food production, improving marketing and market access, and increasing agricultural trade and investment. Its principles emphasize the need for focusing on poor rural families, creating broad-based partnerships, and building on successful programs in countries with a will to create a positive policy environment to improve food security.

AFSI was funded in FY 1998 and FY 1999 at “pilot levels” of \$30 million and \$31 million respectively. This level has enabled USAID to build on regional and global programs and expand bilateral programs in seven countries. In FY 1998, these countries included Ethiopia, Malawi, Mali, Mozambique, and Uganda. In FY 1999, Liberia, Rwanda, and Zimbabwe were added.

An expansion in USAID’s FY 2000 budget of at least 50 percent will enable the initiative to expand to at least four additional countries. Priority countries are Ghana, Kenya, Tanzania, and Zambia.

B. AFSI Principles and Goals

AFSI principles and goals were developed through wide stakeholder participation and input. AFSI principles are consistent with the findings and requirements outlined in the *Africa: Seeds of Hope Act*. AFSI:

- ? Focuses on improving the food security status of rural farm families, particularly smaller-scale, poor farmers, many of whom are women, and increasing their productivity;
- ? Builds on successful agriculture programs with African participation and leadership;

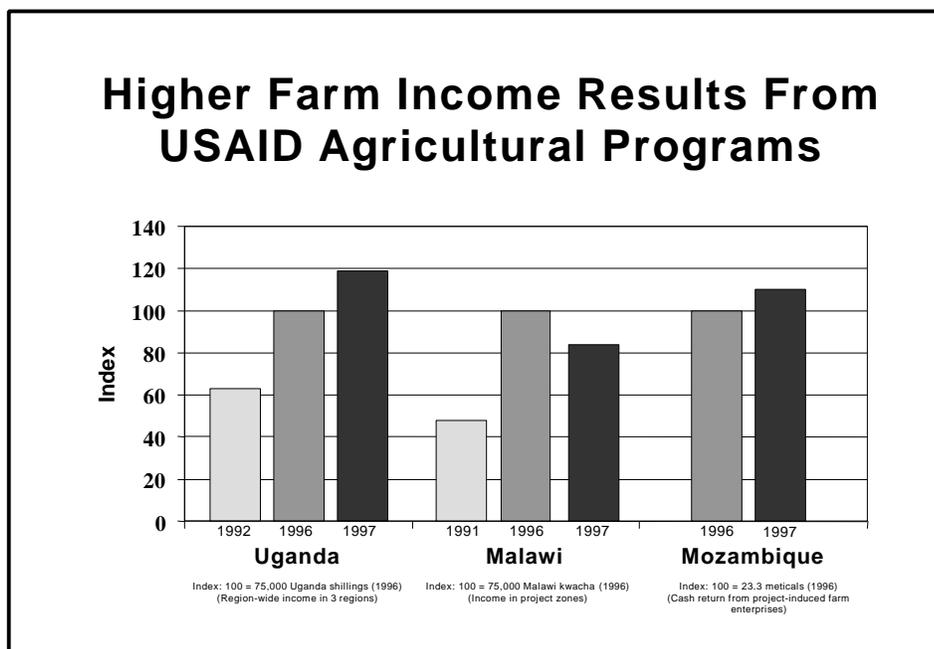
- ? Targets countries with conducive policy environments and the political will to achieve food security goals; and
- ? Creates broad-based partnerships between African and American private sectors, universities, non-governmental organizations and governments.

AFSI Goals

AFSI aims to increase food security in Africa through targeting two related goals: increased rural incomes and improved child nutrition. There are no quick fixes that will result in immediate and sustainable changes in incomes and nutrition, but it has been demonstrated that through concerted investments in small-scale farmer agriculture, people’s livelihoods and health can be improved. The primary means to achieve these goals are through increasing agriculture and production, improving marketing and market access, and increasing agricultural trade and investment, all with a focus on small-scale farmers and the policies and businesses that best serve them.

Nutrition. Levels of malnutrition in AFSI countries are currently higher than for sub-Saharan Africa on average. Strong agriculture and food security programs should have a positive long-run effect on nutrition status, primarily through increasing the capacity of households to grow and/or purchase a sufficient family food supply. AFSI only expects to be able to affect nutrition over a five-to-10 year period. Given the complex determinants of nutrition, this is a long-term goal.

Rural Incomes. AFSI programs increase rural incomes through impacting household agricultural productivity, improving the efficiency of the food system, reducing the costs of food for families, and increasing the returns to farm enterprises through increasing exports and raising returns to investment.



AFSI Subgoals

To achieve improvements in nutrition and income growth, AFSI focuses on three specific subgoals: 1) increased agriculture and food production, 2) increased market efficiency and access, and 3) increased agricultural trade and investment.

Agriculture and Food Production. Increases in agricultural production and productivity, both food and cash crops, directly increase incomes of farmers. Although per capita production levels declined in Africa during the 1980s, national agriculture production has increased in recent years. AFSI will build on and help consolidate this expansion, sustaining these positive trends, and particularly targeting small-scale farmers through farmer organizations and associations. All AFSI countries have programs that aim to increase agricultural production, and increases in agricultural production have been significant in most AFSI countries.

Agriculture and Food Production

With dedicated AFSI funding, in 1998 USAID/Uganda was able to increase the number of farmer clients from 80,000 to 250,000 in an expanded number of districts. Production increases in 1998 over 1997 levels for maize, beans, and milk were 58 percent, 80 percent, and 50 percent, respectively. Regional commodity networks are also an important AFSI activity focusing on productivity increases. These networks were effective in 1998 in releasing a total of 108 different agriculture technologies in 28 African countries.

Increased Market Efficiency and Access. Rural incomes are also increased as the food economy becomes more efficient—for example, as marketing improves and as access to food increases for more people. Currently, up to 80 percent of the population in three AFSI countries (Malawi, Ethiopia, and Mozambique) cannot afford a well-balanced diet, and up to 60 percent of the population in Uganda and Mali are in the same position.

AFSI programs have been most effective in reducing the costs to farmers of marketing their products and purchasing inputs. These improvements, most of which are accomplished through working with associations and groups of poor, small-scale farmers, are resulting in improved consumption. Malawian farmers, who have historically faced high input costs and low margins, have achieved increased access to inputs at lower cost through the development of farmer-led associations and policy dialogue supported by USAID/Malawi's AFSI activities.

Increased Market Efficiency and Access

In USAID-targeted areas in **Mozambique** in 1998, better prices for exports, increased cash crop sales, and other agriculture activities enabled households to maintain consumption levels throughout the year by purchasing food on the market—an option these households did not have in prior years.

Agricultural Trade and Investment. Africa needs to increase its agricultural exports to increase agricultural incomes through agricultural employment and the creation of businesses. Opportunities in international and regional markets need to be identified and targeted. Investment in agriculture is critical, as is an initial increase in imports of some critical inputs from both regional and international markets. There have been significant increases in agricultural exports and in investment in agriculture in many AFSI countries.

Agricultural Trade and Investment

The number of female farmers in Malawi selling export crops to the international market increased by nearly 30 percent in 1998. The elimination of the involvement of the Cereals Board in direct purchases in Mozambique allowed free export trade between Mozambique and neighboring countries. Better agronomic practices available in USAID/Uganda program areas resulted in 1998 in four new private sector companies investing in seed production and distribution in rural areas.

C. AFSI Country Categories and Funding

Country Categories

AFSI does not make regionwide generalizations, but rather identifies three categories of countries that face different problems and opportunities. These categories are outlined below.

Africa Food Security Initiative Country Categories		
Category 1	Category 2	Category 3
Countries with fast growth in agriculture with significant policy reform that are on the road to sustainable agricultural and economic growth, and are developing more mature trading relationships with rest of the world.	Countries that have undertaken some structural adjustment and policy reform measures, but are not yet experiencing sustained or high levels of agricultural growth or a speedy evolution towards more mature trading.	Countries emerging from crisis with an undeveloped agricultural base but the promise to re-enter a path of sustainable agricultural development.
Countries		
Uganda* Mali* Ghana	Ethiopia* Mozambique* Malawi* Kenya Zambia Tanzania	Rwanda* Liberia*

*Pilot AFSI countries

In the pilot phase, AFSI selected countries from each category, focusing on those with considerable food security problems (e.g., Ethiopia, Liberia, and Rwanda) or those with strong ongoing programs poised for immediate expansion (e.g., Uganda, Malawi, Mali, and Mozambique). In addition, successful regional programs have been supported, as well as very modest funding for targets of opportunities, such as Zimbabwe.

AFSI Funding

AFSI was funded in FY 1998 and FY 1999 at pilot levels of \$30 and \$31 million respectively. In FY 1998, AFSI focused on five African countries: Ethiopia, Malawi,

Mali, Mozambique, and Uganda. Specific AFSI activities have been selected by the USAID missions that build on the past success of these agriculture and food security programs. In FY 1999, Rwanda and Liberia, two food-insecure transition countries, were added to AFSI. And modest funding was provided to Zimbabwe to help ensure that the country's land reform is effective, fair, and market-oriented.

D. Building on Success in AFSI Countries: Progress and Activities

One of the key principles of AFSI is to build on the foundation of successful programs. The following section describes some of the successes of USAID's agricultural programs in 1997 and 1998 and outlines the activities that AFSI will support in each of these countries. AFSI principles and objectives are reflected in each of these country programs.

Country Programs

Mali. The Sustainable Economic Growth program in Mali benefits from AFSI, as well as activities that are designed to improve social and economic behavior among youth through health and child survival activities. Mali achieved an increase in the economic growth rate in FY 1997 from 4 percent to 5.7 percent partly through increases in agricultural production, for which USAID has been instrumental.

AFSI Activities. Mali focused AFSI FY 1998 funds on expanding a market information system that will continue to provide critical information to agricultural producers and traders on where to find the best markets (regionally and internationally) for their produce. Mali will also support community-based irrigation schemes that will increase productivity in rice. However, malnutrition remains high in Mali, and, through mission efforts, the government of Mali has added nutrition as a distinct component in its new 10-year health plan. USAID/Mali is developing specific activities in nutrition and agriculture such as supplemental weaning foods and nutrition education, which will be complementary to income-increasing objectives.

Mozambique. USAID/Mozambique uses AFSI funds to expand activities under a strategic objective aiming to increase rural incomes in focus areas. One of the important successes of this strategic objective in 1997 was to increase incomes of households through a 51 percent increase in sales of agricultural produce through integrated actions improving agricultural policies, roads, agricultural productivity, and market information. Incomes in targeted areas continued to increase in 1998, and agricultural sales increased by 55 percent.

AFSI Activities. Mozambique is focusing AFSI funds on: 1) increasing the capacity of the Ministry of Agriculture to improve and implement marketing policy; 2) expanding labor-intensive rehabilitation and maintenance of farm-to-market roads, which contribute significantly to improved market efficiency and the flow of agricultural goods; and 3) creating and strengthening producer marketing associations.

Ethiopia. Private sector involvement in grain marketing increased significantly in Ethiopia in 1997 due to USAID/Ethiopia activities. Farmers' shares of market retail

prices for grains also increased. However, the Ethiopian government did not develop a food security and agriculture program until 1997. Therefore, USAID/Ethiopia has been working with the government to coordinate programs. An official National Food Security Policy was developed and published in 1997, and regional governments developed food security strategies, which were presented in 1997 and 1998 to the U.S. government.

AFSI Activities. USAID/Ethiopia will be developing new objectives for AFSI funding during 1999, which will focus on regional food security strategies. The activities will focus on diversifying agricultural production, supporting the development of rural financial services, developing sound watershed and soil fertility management practices, and addressing human nutrition needs.

Uganda. USAID/Uganda increased rural household incomes in program areas. Recent policy changes stimulated growth in the export of several cash crops including maize, which is a surplus crop for Uganda. Impressive export earnings from high-value, non-traditional crops have been achieved through increased production and new profit-making production and export enterprises. Demand for improved maize and bean seeds quadrupled in 1997, and, with the introduction of new mosaic-resistant cassava, farmers are now sustaining yields of over eight tons per hectare. USAID/Uganda is also addressing the most food insecure households—those located in the northern part of the country. AFSI supports activities to improve a foundation for reintegration of targeted areas in northern Uganda.

AFSI Activities. AFSI resources have been used to expand food security activities, particularly in agricultural productivity and improved post-harvest technologies. Field demonstrations (trial plots) of food security crops, such as maize, beans, and cassava, rose from 480 sites in 1997 to nearly 4,000 in 1998. At the end of 1998, almost 250,000 Ugandan farmers were involved in the demonstrations, a major increase over the 80,000 involved in 1997. These successful interventions are being introduced in northern districts where instability has limited prior long-term investments. AFSI resources have also been used to increase milk production and productivity. The program focuses on improved dairy breeds, artificial insemination, zero-grazing and pasture management, and dairy product development.

Malawi. The Malawi economy has a large share of smallholders emphasizing maize as the basic food crop. USAID/Malawi's objective to increase agriculture incomes on a per capita basis in FY 1997 was very successful through creating dynamic farmers' organizations that increase the returns to small-scale farmers from the hard work they put into agricultural cultivation. Very positive results were seen in crop diversification and food security as improved crop production and storage technologies for cassava and sweet potato spread quickly. Yields for major root crops, Malawi's food security crops, are almost double what they were several years ago.

AFSI Activities. AFSI will continue to expand these successes to integrate more farmers into a growing agriculture sector and out of the subsistence economy. In particular, the USAID mission will improve financial systems for smallholders, improve smallholder

agribusiness development through the development and expansion of farmer associations and marketing information, and support smallholder crop and livestock production (dairy, sweet potato, cassava, and groundnuts). A special focus on community-based programs to address food security will be developed by a U.S. NGO.

Regional Programs

As a result of investments in African-based research networks and their partnerships with private and non-profit organizations, USAID can demonstrate the dissemination and adoption of new technologies throughout Africa.

AFSI Activities. Regional networks in East, West, and Southern Africa are supported under AFSI. These include dynamic crop networks for all major food security crops such as maize, cassava and root crops, beans, potatoes, vegetables, and other networks that emphasize policy and technology transfer. These networks have been highly successful in coordinating stakeholder groups for demand-driven research, prioritizing investments, and building sustainable regional and national organizations. An innovative program was developed to draw upon the expertise of U.S. universities to address critical scientific constraints in the development of agricultural technologies through linking these universities with specific international agricultural research centers based in Africa.

Global Programs

A wide range of USAID Global Programs supports improvements in African food security. Under AFSI, a new Global Program was created in FY 1998 to enhance the impact on food security of, and synergies between, universities and international agricultural research centers (IARCs) working in Africa, called the University/International Agricultural Research Centers Linkage (UNIARCL) Program. This program builds on and expands earlier Global Program initiatives to ensure that international agricultural research centers and U.S. universities cooperate more closely in solving critical food security problems. Budget realities precluded continuation of the AFSI university linkages program into FY 1999.

AFSI Activities. Building on priority research problems requiring urgent attention, USAID's Global Program invited proposals from U.S. land grant universities to partner with IARCs in the resolution of such problems. Eight awards were made jointly to a U.S. university and an international agricultural research institute to address a specific scientific problem affecting African food security. For example, a grant to Auburn University and the International Center for Living Aquatic Resources Management (ICLARM) addressed genetic enhancement of the Nile tilapia; and a grant to Clemson University and the International Center for Tropical Agriculture (CIAT) seeks the isolation and cloning of cassava genes for resistance to African Cassava Mosaic virus. The grants to these 16 institutions permit a significant increase in attention by universities to applied research for food security problems in Africa.

**Country/Program Strategic Objectives and Activities Supported by AFSI
(FY 1998 and FY 1999)**

Country	Strategic Objective	Activities
Malawi	Strategic Objective: Increased agricultural incomes on a per capita basis	<ul style="list-style-type: none"> • Improved financial systems for smallholders • Smallholder agribusiness development—farmer associations—(market information and marketing) • Market and crop production information system • Smallholder crop and livestock production (dairy, sweet potato, cassava, groundnuts) • Community-based livelihood program with food security emphasis (CARE)
Mali	Sustainable Economic Growth Strategic Objective: Increased value-added to specific economic sectors Youth Strategic Objective: improved social and economic behavior among youth	<ul style="list-style-type: none"> • Market Information System • Nutrition analysis and support activities • Community-based irrigation schemes—rice production
Ethiopia	Strategic Objective: Increased availability of selected domestically produced food grains	<ul style="list-style-type: none"> • Diversification of agricultural production • Rural financial services • Watershed/soil fertility management • Human nutrition
Mozambique	Strategic Objective: Increased rural household income in focus area	<ul style="list-style-type: none"> • MOA capacity strengthening in marketing policy • Labor-intensive rehab and maintenance of farm/market roads • Creating and strengthening producer marketing associations
Uganda	Strategic Objective: Increased rural household incomes in targeted regions Special Objective: Improved foundation for reintegration of targeted areas of northern Uganda	<ul style="list-style-type: none"> • Food production programs (e.g., maize, cassava, vegetable oils) • Dairy development • Northern Uganda Food Security Program (NUFS)
Rwanda	Strategic Objective: Increased ability of rural families in targeted communities to improve household food security	<ul style="list-style-type: none"> • Increasing GOR capacity in agricultural/rural development policy analysis, formulation and interpretation • Creating and expanding internal production-marketing chains • Developing/adapting and disseminating agricultural technologies in increased production, profitability and income
Zimbabwe	Strategic Objective: Enhanced citizen participation in economic and political decision-making	<ul style="list-style-type: none"> • Technical assistance for land policy and reform
Liberia	Strategic Objective: Successful transition from relief to recovery through a community reintegration program	<ul style="list-style-type: none"> • Increase smallholder agriculture production through introduction of improved seed varieties and formation of marketing groups
Global and Regional Programs	Strategic Objective: Adoption of improved agricultural program, policies and strategies	<ul style="list-style-type: none"> • U.S. university and international agriculture research institute linkages on African agricultural research constraints • Regional commodity networks in East, West, and Southern Africa

E. Expansion of AFSI

In 1999 three countries were added to AFSI. Rwanda and Liberia are transition countries that experience considerable food-insecurity. Limited funding is being provided to Zimbabwe because of the concern that this country's land reform could be better designed and managed.

The relative stability in Rwanda is providing a good opportunity to slowly rebuild the agriculture infrastructure. USAID/Rwanda will aim to increase the ability of rural families in targeted communities to improve household food security. There will be several strategies employed to accomplish this: increasing the capacity of the government to analyze, formulate and implement agriculture and rural development policy; creating and expanding internal production and marketing chains working with farmer associations; and developing, adapting, and disseminating agricultural technologies to improve productivity.

Due to some continued instability in Liberia, AFSI will focus on continuing successful food security activities implemented by NGOs. Liberia intends to focus the AFSI funds on improving smallholder capacity to produce agricultural commodities. This will be accomplished by the introduction of improved seed varieties and better cultivation practices, which will be enhanced through the formation of production and community-based marketing groups.

In Zimbabwe technical assistance for land policy reform will contribute to enhancing citizen participation in economic and political decision-making. An effective, fair and market-oriented land reform is critical to solve food security problems in the country.

In FY 2000, four countries will be added to AFSI as funding becomes available: Ghana, Kenya, Tanzania, and Zambia. Each of these countries has outlined activities that will be expanded or developed to meet AFSI objectives. These are shown in the table below.

AFSI FY 2000 Country Activities

Country	Strategic Objective	Activities
Ghana	Strategic Objective: Increased private sector growth	<p>Increasing use of improved agricultural technologies</p> <p>Increasing access to market and crop production information</p>
Tanzania	Strategic Objective: Increased Micro and Small Enterprise Participation in the Economy	Expanding private sector objectives to have greater agricultural involvement
Kenya	Strategic Objective: Increased commercialization of smallholder agriculture	<p>Dairy markets strengthened and made more competitive</p> <p>Increased services and labor opportunities for small-scale rural dairy farmers</p>
Zambia	Strategic Objective: Increased rural incomes of selected groups	<p>Support farmer group businesses that improve access to finance and markets, promote improved crop use, agroforestry, and conservation farming</p> <p>Rural road rehabilitation in collaboration with farmer groups and agribusiness</p> <p>Business development support to agribusinesses that buy from or sell to farmer groups</p> <p>Food security policy research with a U.S. university and Zambian public/private sector consultative forum</p> <p>Build government capacity to analyze and negotiate trade protocols</p>



II. Credit and Microcredit Assistance for Rural Entrepreneurs and Small-scale Farmers

A. Background

Section 102 directs USAID to use credit and microcredit assistance to improve the capacity and efficiency of agricultural production in sub-Saharan Africa of small-scale farmers and small-scale rural entrepreneurs, within the broader context of its microenterprise development programs in Africa. The same section also directs USAID to work with other bilateral and multilateral donors and with other organizations assisting microenterprises to “...develop a comprehensive and coordinated strategy for providing microenterprise assistance for sub-Saharan Africa.”

In accordance with this section, USAID will seek to identify and support effective mechanisms to improve the access of rural entrepreneurs in Africa to credit and other microfinance services. In addition, USAID will seek effective ways to support the development of sustainable financial institutions offering microcredit programs adapted to the production needs of farm households. In these latter efforts, USAID will apply the core principles of the Microenterprise Initiative, including a focus on women and the very poor, especially through support for poverty lending; an emphasis on reaching large numbers of people; supporting institutional and financial sustainability; and partnerships with local organizations.

B. Current Microenterprise Support to Africa

USAID has been providing assistance for microenterprise development in Africa for almost two decades. Through its Microenterprise Initiative, started in 1994 and renewed in 1997, USAID committed to further strengthening microenterprise programs in Africa. Based on the most recent data available, funding for microenterprise development by Missions in Africa has increased: rising from \$17 million in 1995, to \$22.8 million in 1996, to \$25.8 million in 1997. When funding from central Bureaus which is utilized for African institutions is added, these figures rise significantly. (See table below). Figures for 1998 and 1999 are not yet available.

A number of opportunities to further enhance microenterprise activity throughout the region are under development, and more are being planned in conjunction with practitioners and other bilateral donors. USAID will continue to focus on strengthening business development services, increasing the institutional capacity of microenterprise development organizations, and alleviating policy and regulatory constraints that limit the growth of microenterprises and microenterprise assistance institutions in Africa.

Sixteen of the 22 USAID field missions in sub-Saharan Africa contributed funds in support of microenterprise development in FY 1997. Additional support came from the

Global Bureau's Office of Microenterprise Development (G/EGAD/MD) and the Bureau for Humanitarian Response's Office of Private and Voluntary Cooperation (BHR/PVC) and Food for Peace Office (BHR/FFP).

USAID's Funding to Microenterprise Activities (U.S.\$ millions)

	FY 1995		FY1996		FY 1997	
	Amount	% of Total	Amount	% of Total	Amount	% of Total
To Africa Region Missions only	\$17.0	n/a	\$22.8	20%	\$25.7	16%
Missions and Central Programs	n/a	n/a	\$27.1	24%	\$38.0	23%
Total USAID Funding	n/a	n/a	\$111.4	100%	\$165.0	100%

USAID's funding of microenterprise activities in Africa has been evenly split between financial and non-financial programs. Financial programs include the provision of credit and savings services. Non-financial programs cover a range of activities, most of which can be described as business development services. Business development services, such as production and marketing assistance, or productivity-enhancing technologies, often complement credit activities and have been especially important for rural entrepreneurs in Africa. In contrast to their urban counterparts, rural entrepreneurs face many more constraints in product marketing and distribution and in accessing input supply networks. Non-financial assistance also includes activities to improve the policy and regulatory environment for microenterprises, microfinance institutions, and other microenterprise support organizations.

Funding to Financial and Non-financial Microenterprise Services in Africa (U.S.\$ millions)

	FY 1996		FY 1997	
	Amount	% of Total	Amount	% of Total
Financial Services	\$12.7	47%	\$20.0	53%
Non-financial Services	\$14.4	53%	\$18.0	47%
Total for Africa	\$27.1	100%	\$38.0	100%

Microfinance in Africa

Although the microfinance programs of Africa are not as well-established as those in the Latin American and Asian regions, several have reached significant proportions. USAID supports microfinance programs with significant outreach (more than 7,000 active clients) in Burkina Faso (Freedom from Hunger), Guinea (PRIDE), Kenya (KREP), Mali (CANEF and Freedom from Hunger), Uganda (FINCA), Zimbabwe (Zambuko Trust),

and South Africa. Many other programs are growing rapidly. Whereas USAID-supported microfinance institutions reported 93,000 active clients at the end of FY 1996, they reported 167,000 at the end of FY 1997, an increase of nearly 80 percent. These clients had active loans valued at \$29 million at the end of 1997, an increase of 142 percent over the previous year's active portfolio. Eight-five percent of all African clients of USAID-supported institutions are women. With poor women often spending a significantly high percentage of new income on food and on the nutritional well-being of their children, there is a strong food security and nutritional impact of reaching large numbers of poor women—rural and urban—through microenterprise. Average loan size in FY 1996 was \$130 and \$176 in FY 1997, suggesting that the programs are highly effective in reaching the poorest entrepreneurs.

USAID has assisted these microfinance institutions through a variety of ways as they become dynamic players in their local economies. USAID is helping the Kenya Rural Enterprise Program—initiated with USAID funding in 1984—in transforming itself into a bank to hold the deposits of its clients. This will permit it to offer savings accounts and other new services as well as expand in scope. In Uganda, USAID is helping FINCA/Uganda, another successful microfinance institution with over 8,000 clients, through the mission's Private Enterprise Support, Training and Organizational Development (PRESTO) Project. This activity has funded the establishment of a Center for Microenterprise Finance to provide technical support to both NGOs and banks in sustainable financial service delivery. The Center for Microenterprise Finance has worked with Uganda's Cooperative Bank to achieve extensive outreach to rural microentrepreneurs.

In Zimbabwe, USAID has been instrumental in setting up the Zimbabwean Association of Microfinance Institutions (ZAMFI), an advocacy group that promotes best practices among microfinance practitioners as well as microfinance-friendly changes in Zimbabwe's regulatory environment.

Poverty Lending

Poverty lending, the provision of very small loans, is one means used by microfinance programs to target their lending on relatively poor borrowers. Many of the USAID-supported microfinance institutions in Africa focus exclusively on providing loans in amounts equivalent to US \$300 or less. (This amount was set as the limit for poverty loans by Congress, based on 1994 dollars.) As of the end of 1996, 74,000 loans—nearly 80 percent of the total loans held by USAID-supported microfinance institutions in Africa—were poverty loans. By the end of 1997, the total number of loans held by such institutions had increased to 135,000, of which 81 percent were poverty loans.

In Madagascar, USAID assists the Caisse d'Épargne de Madagascar (CEM), a financial institution working on a national scale. This institution provides credit and savings services to over 420,000 people—nearly 7 percent of Madagascar's population. USAID's efforts to strengthen this financial institution are aimed at expanding the access of poor households to reliable savings services.

Rural Outreach

While many of the methodologies for providing sustainable financial services to the poor were pioneered in urban areas, a number of microfinance institutions have found ways of extending these methods to rural areas. Some of the more successful have relied on existing rural bank systems that have learned how to work with microentrepreneurs. Microfinance programs focusing on the rural poor in Africa are growing in number and in clientele. In 1997 over 60 percent of the clients of USAID-supported microfinance institutions in Africa lived in rural areas. Of the regions in which USAID works, only the Asia/Near East region had a greater percentage (72 percent) of its clients in rural areas.

Agricultural Production

USAID's policy for microenterprise development defines microenterprises as "tiny, informally organized business activities, other than crop production." The practical impact of this definition is that USAID has to date not included support for financial or non-financial programs specifically aimed at fostering crop production in reporting its overall expenditures on microenterprise development. Farm households have, however, received microfinance services, and it is likely that significant numbers of micro-loans have supported farm activities. As outlined in the following section, USAID will, in the future, broaden its reporting to include such programs and will seek effective means to support the development of sustainable microfinance programs for agricultural production in Africa.

C. USAID's Approach

Building on Success

Many of the ongoing USAID microenterprise development programs in Africa strongly support the objectives of the *Africa: Seeds of Hope Act*. Programs that are functioning well deserve continued USAID assistance to consolidate and/or expand operations. An example of this would be a microcredit lending program that is covering the full costs of its program, recovering loans, covering its cost of operations, and expanding rural services through branch operations. Such a program will promote food security, the alleviation of poverty, and quite likely increased agricultural production.

USAID recognizes the need to initiate new activities or adjust ongoing ones that can have a greater impact on microenterprise development for rural production, as well as to engage in joint planning of an Africa strategy with the range of active microenterprise partners. In assessing impact and identifying new options and approaches, USAID can build on existing relationships with land grant institutions that are knowledgeable in microenterprise.

Microfinance has developed a series of best practices for creating sustainable programs through increased loan repayment, covering delivery costs, and promoting growth.

Among these are peer lending, village banking programs, solidarity groups, rotating savings and credit associations (ROSCAs), savings and loan associations, and credit unions. Commercial banks are also reaching down to microenterprises with a wide range of their own lending and savings products. Although these programs are primarily urban, an increasing number of methodologies and programs have been successfully reaching the rural poor. Support for these programs should continue.

While the microfinance experience appears to have been most efficient and effective in urban areas, even urban programs have impacts in the agricultural and rural areas. A substantial body of research indicates that urban microenterprises have significant ties to the agricultural sector, making investments in and sending business income back to their families in rural areas. The findings and logic would indicate that the more rural the household, the greater the agricultural impact of the lending.

Section 103 of the Act authorizes USAID to support private producer-owned marketing associations. In some cases producer-owned associations have associated credit unions. These situations need to be analyzed for potential extension of microfinance best practices.

There is a growing experience of successful efforts to promote business development services for microenterprises owned by the poor. The common thread that seems to characterize the successful programs is a demand-driven, market awareness. Voucher programs, product development services, and strengthening private market linkages appear to be among the most promising methodologies. Support for these programs should also be continued. G/EGAD/MD and the Africa Bureau will assess other business development services that appear to have potential for increasing the value-added of products and increasing incomes in areas most at risk of food insecurity.

The Hon. Doug Beureuter, one of the Congressional sponsors of the Act, recently quoted a leading African agriculturalist on the clear linkages between economic development and food security: “You cannot detach economic development from food self-sufficiency. That profound truth is the essence of the *Africa: Seeds of Hope Act*.” The poorest are the most vulnerable to food insecurity because of their lack of purchasing power when food supplies are short. The Africa Bureau will identify areas and groups that are particularly vulnerable to food insecurity. Promotion of market-led business development services and microfinance will receive priority among these groups.

Institutional Capacity Development

Limited institutional capacity constrains efforts to foster the growth of microfinance and business development services, especially in rural Africa. This is a function of a generally less developed economic infrastructure, fewer service and support institutions, and—most importantly—lower levels of education and awareness of private sector development by the populations.

The lack of capacity and local institutions is a major constraint across a wide range of areas: agricultural credit, food security, business development services, cooperatives, and a weak economic and regulatory environment. One of the key challenges lies in microfinance, where the depth and breadth of experience in microfinance in Latin America and the Caribbean, and in Asia, is much greater than found in sub-Saharan Africa. This suggests that the institutional capacity to successfully manage microfinance programs may be a significant constraint. Institutional assessments of microfinance institutions will be necessary to evaluate the need for strengthening management procedures, training staff, and developing appropriate incentive structures.

The need for added institutional capacity to promote microenterprise and microfinance also extends to USAID staff. In African situations where the economies are less developed, the indigenous experience in microenterprise and microfinance best practices is shallow, and the legal and regulatory environment is less supportive. USAID will require more experienced staff with better training. USAID is a leader in microfinance as a result of the knowledge and experience of the Agency and its personnel. Continued education of key USAID personnel in specialized training courses in microfinance will contribute to the quality of USAID's program and, specifically, the implementation of the Seeds of Hope Act.

USAID staff will be encouraged to attend specialized training courses such as the Microfinance Training Institute in Boulder, Colorado, the Microenterprise Development Institute in New Hampshire, and specialized workshops that may be jointly sponsored by the Africa Bureau and G/EGAD/MD.

Credit for Agricultural Production

As noted in Section II.B, USAID has to date excluded support for programs specifically aimed at assisting crop production in reporting its overall support for microenterprise development. Support for such programs has also operated outside USAID's policy guidance on microenterprise development.

In practice, many microenterprise programs include large numbers of farmers among their clients. Many small-scale farm households in Africa and elsewhere earn an important share of their income from agroprocessing and other agriculture-related activities, such as the preservation and packaging of foods as well as the wholesale or retail marketing of farm products. USAID supports a wide range of programs that provide financial and/or non-financial assistance for such activities—in Africa and elsewhere—and includes this support in its microenterprise development reporting. For example, in Benin, Ghana, and Mozambique, USAID has supported Appropriate Technology International (now called Enterprise Works Worldwide), CARE, Africare, Technoserve, and World Vision in the development and promotion of improved presses for edible oil. In Ghana, USAID has provided assistance to Technoserve for improving storage of cereals and grains. Technoserve/Ghana also provides technical assistance in the marketing of non-traditional export products such as cashew nuts, shea nuts, pineapples,

and some medicinal plants. In Mozambique, Technoserve provides business advisory services to micro-businesses linked with farm producer associations.

It is neither practical nor productive to attempt to limit such diversified farm households in the uses to which they put money borrowed from microcredit programs. Money is fungible, and households receiving microloans for their processing or marketing activities can and do use those loans to finance whatever activities they believe will offer them the highest return, including the purchase of seed, fertilizer, or other crop inputs. Experience shows, and USAID clearly recognizes, that effective lenders to microenterprises do not attempt to restrict the use of funds by borrowers.

However, experience in Africa and elsewhere also shows that efforts to build effective and sustainable programs specifically aimed at providing credit and other financial services for crop production face a variety of challenges distinct from, and additional to, those facing microfinance programs focused on non-agricultural activities. For example, the seasonal nature of crop production generally precludes the use of weekly or monthly repayment schedules on loans provided to purchase fertilizer or other cash inputs; reliance on such repayment schedules is an important component of many successful microfinance programs. Similarly, the exposure of many farms in a given area to the same fluctuations in weather or crop prices and other agricultural problems makes it much more difficult for small-scale agricultural lenders to diversify their financial risks in the same way as do microenterprise lenders. These and other challenges have tended to limit the transfer of advances in microfinance to small-scale lending for agricultural production. USAID has tended to focus its support for agriculture in other, equally critical areas, such as improving agricultural policies, technologies, and market linkages, rather than providing agricultural credit.

In line with the provisions of Section 102, USAID will undertake a systematic effort to identify effective ways to support the development of sustainable financial institutions offering microcredit for small-scale agricultural production in Africa. To ensure consistency with congressional intent, USAID will look to the core principles of the Microenterprise Initiative to guide these efforts. In particular, USAID will seek to identify approaches that (1) maintain focus on women and the very poor, including support for poverty lending; (2) help implementing organizations reach greater numbers of people; (3) support institutional sustainability and financial self-sufficiency among implementing organizations; and (4) achieve improved partnerships with local organizations.

Consultations with Partners

The Act requires USAID to continue working with other countries, international organizations (including multilateral development institutions), and entities assisting microenterprises to develop a comprehensive and coordinated strategy. In addition, the Act requires that programs be designed and conducted in cooperation with African and U.S. organizations that have expertise in addressing the needs of the poor, small-scale farmers, entrepreneurs, and rural workers, including women.

USAID has held initial consultations with the Microenterprise Coalition and its members, Bread for the World, the Consultative Group to Assist the Poorest (CGAP), and land grant universities to develop plans and relationships. USAID will work in consultation with our partners to develop plans and mechanisms for mutually beneficial participation and implementation of the program that has been outlined above. The June 1999 meeting of the CGAP will provide USAID an opportunity to work with the broad range of partners to begin identifying the overall approach and timeframe for a joint strategy for microenterprise in Africa.

D. Actions in Response to the *Africa: Seeds of Hope Act*

USAID will take the following actions to strengthen microenterprise activities in Africa along the guidelines set forth in the *Africa: Seeds of Hope Act*:

- ? Review rural finance and agriculture credit experience and identify best practices to help direct planning and program adjustment to advance the Seeds of Hope objectives. Draw experience and practices from a range of partners including other donors, microenterprise NGOs, and U.S. land grant institutions.
- ? The Africa Bureau will collect mission experiences and results relating to rural credit, the informal sector, and microenterprise development with special attention to the microfinance and business development service organizations. The Bureau will also engage the missions to identify how the goals of the legislation can be advanced in future programming decisions in Africa.
- ? Based on the findings about best practices, and the potential for microenterprise development in line with the *Africa: Seeds of Hope Act*, the Africa Bureau and G/EGAD/MD will adjust program parameters, and develop strategies to encourage allocations and experimentation in field programs to advance the objectives of Section 102 of the Act.
- ? The Africa Bureau and the G/EGAD/MD will expand collaboration with field missions to assure that economic policy and regulatory reform activities address the constraints that impede microenterprise development and credit activities for rural development.
- ? Strengthen capacity and institutional-building efforts in Africa for microfinance and business development service institutions to help advance rural development and the objectives of the Act.
- ? Build USAID staff capacity in microenterprise development through training and workshops. In particular, staff will be encouraged to attend specialized training courses such as the Microfinance Training Institute in Boulder, the Microenterprise Development Institute in New Hampshire, and specialized workshops that may be jointly sponsored by the Africa Bureau and G/EGAD/MD.
- ? Develop jointly with key microenterprise stakeholders and partners a strategy for microenterprise development in Africa per the Act. The first major step will be taken in June 1999 at the Abidjan CGAP meetings to develop an agreed upon approach and timeframe for developing the strategy.



III. Support for Producer-Owned Cooperative Marketing Associations

A. Background

Producer-owned cooperative marketing associations form a primary building block for many USAID agriculture programs in Africa and have been a key element of success in many programs in the recent 1990s. Producer-owned cooperative marketing associations provide farmers with access to better services and better prices. These organizations are filling a large void in rural services that has been created as African governments have suspended subsidized and inefficient services to Africa's rural people. USAID continues to expand support for the development of such associations and fully supports the emphasis placed on them in the *Africa: Seeds of Hope Act*.

USAID's involvement in supporting such associations dates back to the Humphrey Amendment to the Foreign Assistance Act, which calls on USAID to support and fund U.S. cooperative development organizations (CDOs) that carry out development programs overseas. The Office of Private and Voluntary Cooperation in USAID's Bureau for Humanitarian Response (BHR/PVC) has agreements with and provides support to eight CDOs. These organizations are to assist and enhance overseas cooperatives in the areas of savings and credit, housing, agriculture and agribusiness, technology transfer, democratic institutions, rural telecommunications and electrification, private enterprise development, and insurance protection.

The support of BHR/PVC grants to CDOs has often piloted new approaches that USAID field mission funding has then built on to help farmer associations expand in number and scope. A broad range of NGOs have joined the CDOs to undertake successful efforts to develop and strengthen farmer-owned producer marketing associations. In addition, several U.S. land grant universities and international African agricultural research institutes are providing support to and/or coordinating their activities with such programs.

B. Impact of Producer-Owned Cooperative Marketing Associations

Producer-owned cooperative marketing associations provide rural people with the assistance they need to better access agricultural markets at good prices, or better access the services they need to be successful farmers. A greater number of small-scale farmers, who are also the poorest, can be reached through working with these organizations; therefore, the potential impact of the support is very significant. USAID is working with and through these types of associations in every agriculture program in Africa, as can be seen in the table at the end of this section. The size of the individual organizations varies tremendously, but the scale in many countries is very large. There are close to four million members in the cooperatives in the four regions of Ethiopia for which ACDI/VOCA provides training. About 25,000 poor farmers are reached in northern Mozambique through USAID-funded CDOs and NGOs.

Producer-owned cooperative marketing associations are also a very effective way to reach female farmers in Africa. On average, 47 percent of the members of associations for which USAID support is well established are women. Women comprise over 70 percent of members of dairy cooperatives in Uganda, and close to 50 percent in similar cooperatives in Kenya. In Rwanda, an estimated 30,000 women are reached through support to 1,200 associations. Such associations provide women—who tend to have even greater problems in accessing services than rural men—an effective way to purchase agricultural inputs, obtain good prices for their products, and gain access to new economic opportunities and sources of income from agriculture.

Farmers' incomes increase as their agricultural activities become more productive and efficient. Groups of farmers can purchase inputs at lower prices, and larger volumes of goods can be marketed at higher prices. Lower input prices and higher output prices lead to significant increases in profits and incomes for small-scale farmers. In addition, organized groups can access other services more efficiently, such as agricultural extension advice and technical training, and they can develop their own financial services. Examples of these benefits are illustrated in the boxes below.

Savings and Dividends for Cooperatives in Ethiopia

ACDI/VOCA's Cooperative Development program in Ethiopia has the objective of empowering small farmers to successfully compete in, and profit from, improved agricultural production. ACDI/VOCA provides training in business and cooperative management, the use of credit, product handling, and marketing practices. Farmer members of cooperatives in Oromiya Region saved \$390,000 in fertilizer purchases in 1998 when their unions issued a call for tenders from fertilizer dealers. Farmer members have also seen increases in the amount of dividends they receive—the average dividend per member increased by 26 percent in 1998.

Increased Milk Production in Uganda

Land O'Lakes has provided advice and assistance to new regional dairy associations in Uganda to improve their financial viability and member services. More than 1,000 Ugandan farmers have received training in milk handling, preservation, and cheese and ghee (clarified butter) making; another 4,200 farmers have received on-site training from member cooperatives. The production of milk at the farm level increased by 50 percent in 1998.

C. Funding for Producer-Owned Cooperative Marketing Associations

USAID support to such associations has been expanding and is expected to continue to expand as a result of increasing USAID support for non-governmental entities in the provision of services on a sustainable basis to Africa's rural women and men. The figures in the table below show the rapid growth in U.S. support to such associations.

Producer-Owned Cooperative Marketing Associations					
	FY 1995	FY 1996	FY 1997	FY 1998	FY 1999
Funding \$million	23.3	25.9	28.2	32.1	41.2

D. Future Actions for Producer-Owned Cooperative Marketing Associations

Producer-owned marketing associations serve a number of other purposes in support of the intent of the *Africa: Seeds of Hope Act*. They are often a means by which farmers can gain access to credit that they would, as individuals, be unable to get. In addition, such associations increasingly can be an effective way to ensure that farmers have a voice in setting agricultural research agendas. The experience of the West African Rural Foundation in Mali, an African NGO that helps local farmer groups keep research scientists focused on small-scale farmers' real needs, is probably the best example of this.

The most important USAID action in carrying out the intent of Section 103 of the *Africa: Seeds of Hope Act* is to ensure that the significant support to such associations continues, and expands, so that the associations can serve a range of other functions of great importance to small-scale farmers and poor rural men and women.

Producer Cooperative Marketing Associations Supported by USAID Programs in Sub-Saharan Africa

Country	Brief description of cooperatives/associations	Partners—universities, government, local and international NGOs	Membership estimate (male/ female)	Budget FY95, FY96, FY97, FY98, FY99
Mali	Agricultural cooperatives, village-level production groups, agribusiness associations, and community-based irrigation schemes—rice production	Ministry of Rural Development and Water, regional extension services, Michigan State University, Chemonics Intl., CLUSA, CARE, Mali Chamber of Commerce	50% women	\$14 m (1995-99)
Malawi	National Association of smallholders, and affiliates, for training, production and input & output marketing of chilies, coffee, cotton, dairy Savings and credit associations	ACDI, Malawi Union of Savings and Credit, Land O'Lakes, National Research Program, Ministry of Agriculture, IITA, ICRISAT and CARE	65% men 35% women	Average \$7.0 m per year
Mozambique	Rural based marketing associations—cashew, maize	CLUSA and World Vision	23,874 of which approximately 30% are women	FY96 \$.903m DA FY97 \$1.762m DA FY97 \$2.050m LC FY98 \$3.191m DA FY98 \$2.4m LC FY99 \$0.5m DA FY99 \$2.4 LC (DA-development assistance; LC-local currency)
Uganda	Farmer/producer associations, commodity associations, dairy cooperatives, and marketing and trade associations	Chemonics, Mississippi University, Heifer Project Int'l, Land O'Lakes, ACDI/VOCA, TechnoServe, Makerere University, Ministry of Agriculture, IITA, CIAT	70% of 250,000 farmers (185,000) are in cooperatives with 25-1,200 members; Dairy program has 10,000 farmers—90% are in 30 cooperatives; 30% men; 70% women	FY95 \$5.5m FY96 \$5.9 m FY97 \$4.0 m FY98 \$7.25 m FY99 \$6.25 m
Ethiopia	Agriculture input retailers—fertilizers, seeds, pesticides—formation of retailer associations Cooperative development agriculture (cereals, coffee, dairy, pastoral livestock)	ACDI/VOCA with regional and local governments, Sasakawa Global 2000, private sector suppliers	retailer organizations 600 (4% women) cooperatives 3,916,992 Men: 3,558,362 Women 358,630 (for 4 regions)	Retailers FY96 \$585,421 m FY99: \$200,000 m Cooperatives FY97 \$1,380,000m FY99 \$5m est.

Ghana	Producer organizations (cocoa, cashew, shea)	Technoserve, ADRA	N/A	N/A
Zambia	Business-oriented rural community associations (CARE) CLUSA–rural finance for farmer-managed non-farm enterprises	Ministry of Agriculture, Food and Fisheries; Ministry of Environment and Natural Resources; Zambian Agricultural Sector Consultative Forum; Zambian National Farmers Union; Zambian Agribusiness Forum; Environmental Conservation Association of Zambia; CARE; WV; CLUSA; University of Maryland; Michigan State University	CARE: 13,517 members 5,136 women CLUSA rural business 4,917 members 1,163 women CLUSA community forest management 5,000 members World Vision agroforestry 12,000 farmers	FY95 FY96 \$0.7m FY97 \$1.2m FY98 \$1.5m FY99 \$3.2m
Kenya	Dairy groups Horticulture producers Fresh Producers Association of Kenya (FPEAK) Credit cooperatives, Small Farmers groups	Ministry of Agriculture, Ministry of Cooperative Development, CLUSA, American Breeders Association, Land O'Lakes, Limuru Dairy Association Fresh Produce Export Association Ministry of Agriculture Nyeri Tea Growers Cooperative Society US NGOs (WV, CRS, CARE, ADRA, FHI)	30,000 dairy farmers (12,000 are women) 170 members 24 women 5,000 members 50 % women 50% men	\$4m (FY95-2000) \$3 m (FY97-2000) \$1m annually
Rwanda	Farmer associations–microcredit, input purchasing, production techniques and practices, business management, small-scale value-added processing and marketing	National agricultural research institutions (ISAR), U.S. NGOs (WV, CRS, CARE, FHI), farmer association regional research networks, international agricultural research centers, Michigan State University, GOR ministries	1,200 associations with an estimated 30,000 members of which 70% are women	\$20 million (over next five years)
Guinea	Agricultural Marketing Foundation has farmer members and objective to help farmers market produce	Guinean NGO		

Madagascar	PRORILAC–union of rice industrials SYPEAM–union of producers of essential oils, etc. ROVEL–dairy cooperative AVOTRA–road users association VONONA–women association for processing tropical fruits CHEF–regional union of essential oil producers FITAFA- wheat farmer cooperative PROMABIO–union of biologique spices, fruits SELMA–union of litchi exporters	Chemonics, University Ecole Superieure des Science Agronomique; National dairy union, National animal husbandry program, public and private extension services; National extension program, research institutions; CIRAD (French research organization); NGOs–TAFa and PNVA	PRORILAC 10 industrials SYPEAM–33 industrials ROVEL–59 groups (600 members) AVOTRA 7070 individuals– (50% women) VONONA–36 (all women) CHEF–32 (3 women) FITAFA–33 groups (majority women) PROMABIO–14 industrials (1 woman) SELMA–26 exporters	
Zimbabwe	Farmers associations (Zimbabwe Farmer’s Union, Indigenous Commercial Farmers Union, commercial farmers union), Women’s associations (Women’s Action Group), Farm workers associations (Farm Community Trust)	Land Tenure Center, University of Wisconsin, University of Zimbabwe, National and Local Government of Zimbabwe Land Reform Institutions	75% men 25% women	FY99 \$.8m FY00 \$0.7m
Liberia	Rural community-based production organizations, rural-based women marketing associations, farmer organizations	World Vision, CRS, LWS, plus local NGOs	N/A	FY99 \$1.5m
Senegal	Farmer and community groups organize cereal banks, livestock fattening, vegetable gardens, etc., village–level, women’s and mixed gender income-generating NGOs and service PVOs	AFRICARE, New Transcentury Foundation, RODALE, local Senegalese NGOs	KAED (2,851) 766 male 2,085 female PVO/NGO support (5,000) male 400 female 4,600	KAED FY95-FY99 (\$2m/year) PVO/NGO (est. \$2.8m/year)



IV. Agricultural Research and Extension Activities

A. Background

New farming techniques and seed varieties are essential to sustain Africa's natural resource base and increase the incomes of small-scale farmers—women and men—in sub-Saharan Africa. Scientific research, combined with community discussion and participation, is the key to developing new farming techniques and better seeds. Linking researchers to farmers' associations, local agribusiness firms, NGOs, and other sources of agricultural extension is the only way to get new techniques and seeds to enough farmers to make a difference.

All over Africa, new techniques and seeds are being developed and getting out to farmers' fields. Indeed, thanks to investments by USAID, USDA, U.S. land grant institutions, international agricultural research centers, NGOs and African governments and other donors, there has been a significant impact from past agricultural research and extension efforts. On average, each dollar invested in African agricultural research and extension has yielded \$5.00 in economic benefits, most of those benefits originating with small-scale farmers. Such high economic returns are comparable to those found in other parts of the world. These past agricultural technology investments, together with an improved economic policy environment for farmers, are responsible for a turnaround in the 1990s. Since the early 1990s, for the first time in almost three decades, per capita foodgrain and export crop production has increased.

In terms of African farmers, these investments have been responsible for improving the lives of tens of millions of Africa's rural men and women. For example, the cassava crop in East and Southern Africa was saved from three devastating disease and pest problems. Major increases in corn productivity were achieved. South African researchers were able to turn their considerable strengths toward the needs of that country's poor majority. Productive agriculture in such war-torn countries as Rwanda and Mozambique was reestablished as soon as hostilities ceased. And Ethiopia moved from famine in the last decade to surplus production in the 1990s by doubling and tripling the land's productivity. The problems of poverty, hunger, malnutrition, and resulting childhood death rates would be much worse than they currently are without the already considerable success of agricultural research and extension in Africa.

However, these increases are not enough to save Africa from continued poverty and worsening food shortages. Many of the techniques and seeds developed to date are not appropriate to the needs of Africa's female farmers. In addition, projections of food requirements for the next two or more decades show that, despite the recent progress, major new increases in African farm productivity must occur to protect rural people from getting poorer, urban people from higher food prices, and countries from suffering major food crises. Nor are current farming techniques adequate to address Africa's growing rural environmental problems related to soil degradation, water availability, and toxic chemical residues. Despite major progress that all can take pride in, Africa's research and extension systems, and donor and African governments supporting them, face difficult challenges ahead.

An estimate of USAID funding for agriculture research from central and regional sources is provided in the table below. This funding has fluctuated around \$11 million over the past five years.

USAID Funding for Agricultural Research in Africa (US \$ millions)

Central and Regional Funding*				
1995	1996	1997	1998	1999
14.5	9.4	11.5	12.7	11.5

* Unofficial estimate, does not include funding from USAID bilateral missions in Africa

B. Coordination Mechanisms and Consultations

The *Africa: Seeds of Hope Act* recognizes the essential role that better coordinated and funded agricultural research must play in meeting these challenges. It calls on the USAID Administrator, in consultation with USDA, U.S. land grant universities, international agricultural research centers, NGOs, and African research and extension groups, to develop a plan for better coordination of agricultural research and extension in Africa. The plan presented herein has been developed in close coordination with all of those partners. The plan originated in a day-long partner consultation on February 24, 1999, jointly hosted by USAID, USDA, and the National Association of State Universities and Land Grant Colleges. That partner consultation involved a broad range of representatives of land grant universities, NGOs and cooperative development organizations, international agricultural research centers, and Africa research and technology groups, as well as the President’s Food Security Advisory Committee.

A second consultation took place in Gaborone, Botswana, during the March 5-9 meeting of the Forum for Agricultural Research in Africa (FARA) and the Special Program for African Agricultural Research (SPAAR). This annual meeting has participation from almost every major sub-Saharan African agricultural institute and donor, with USDA and USAID participation, together with representatives from African NGOs and farmers’ and women’s groups, agribusiness associations, universities, and international research centers.

There was a clear consensus among participants in both sets of consultations that there are some marginal gains to be made from better coordination, and several new coordination recommendations are contained in the plan presented here. It is important to note that USDA and USAID have longstanding joint staffing arrangements that ensure strong agricultural research coordination, and that U.S., international, and African participants in African agricultural research and extension are represented in the very effective FARA and SPAAR coordination group, and subregional African organizations and networks that are related to SPAAR and FARA. The consensus was strong among all partners consulted by USDA and USAID that new coordination mechanisms and new initiatives are not the most effective way to address the fundamental problems of agricultural research and extension in Africa.

These fundamental problems were described by African representatives to the February 24 Partner Consultation as follows:

- ? Bureaucratic and state-led approaches, in which small-scale farmers (especially women) are seldom consulted and their needs often overlooked.
- ? Supply-driven rather than demand-driven priorities, which sometime lead to identifying solutions in search of a problem rather than starting from client-based needs among female and male farmers, businesses serving the needs of farmers, and NGOs and farmer associations, and that often overlook the environmental sustainability requirements of new farming techniques.
- ? Lack of real, equal partnerships between African and international scientists, between researchers, extension agents, and users of agricultural technology, and between farmer and business representatives and research systems.
- ? Poor planning and incentives to perform, leading to a failure to target limited scientific and extension capacity on a small set of top priority agricultural productivity problems.
- ? Funding crisis and erosion of capacity, resulting in inadequate resources for research, serious morale problems among African scientific and extension officers, and lack of new, young scientific talent working in agricultural research and extension, both in the United States and in Africa.
- ? Weak technology transfer and extension systems that are unable to get productive techniques to significant numbers of farmers without the “push” of a project, donor, or NGO.
- ? Isolated project and NGO enclaves in which successful extension approaches can lead to local impact that is not replicable due to high cost.

The problem of erosion of capacity and the funding crisis is in a sense key to most of the other problems. After peaking in the mid-1980s, donor support for African agricultural research and extension has almost been cut in half. At the same time, African governments, with a handful of exceptions, have been unwilling to provide ongoing operating budgets commensurate with current staff and facilities, nor has there been much success in expanding broad and sustained private sector agricultural research funding. The percentage of agriculture GDP going to agricultural research in Africa has fallen precipitously since the mid-1980s, reflecting a failure of both donors and African governments to follow through on earlier investments.

The groups involved in SPAAR have identified six principles to reform agricultural research in Africa; USAID, with USDA technical expertise, is a significant participant in helping African research groups and their U.S. and international partners put these principles into action. The February 24 Partner Consultation came to conclusions similar to these reform principles. The principles are:

- ? Rigorous and participatory priority setting involving female and male farmers, farmer associations, local agribusiness firms, and NGOs in setting agricultural research priorities;
- ? Consolidated and sustainable funding, so that reliable levels of public funds (African or donor funds) go only to research that the private sector cannot pay for;

- ? Management capacity building and accountability to ensure that priority research identified by farmers is well-funded and -managed;
- ? Country coalition building and support groups to ensure broad support for funding and management oversight of research and extension;
- ? Linkages between farmers, NGOs, local firms serving rural people, research, and extension; and
- ? Regionalization of research and international collaboration, to ensure that farmers in one country have access to techniques and seeds from another country as quickly as possible.

The February 24 Partner Consultation recommended that a plan for better coordination among U.S.-supported American and international partners with African research and extension groups must be built on well-known principles related to the needs, strengths, and mutual respect required of each partner in any coordinated effort. The subsequent Gaborone discussions underscored this point and emphasized the need for coordination to be led and managed by the coordination and priority setting mechanisms that have been set up by African stakeholders in agricultural research and extension. In addition, both sets of consultations underlined the need for long-term commitment and that coordination without a strong institutional capacity among all the partners is ineffective. Partners requiring additional institutional strengthening include farmers' organizations, public and private sector research institutions, local NGOs, agricultural training institutions, and various groups involved in agricultural extension. Without finishing the job of institution building, capacity building, training, and management improvement among African agricultural research and extension agencies, significant new directions in U.S. efforts in coordination will yield little fruit.

C. Actions Required to Expand the Impact of Agricultural Research and Extension

Based on the above analysis, three sets of action are necessary to expand the impact of agricultural research and extension on the well-being of sub-Saharan Africa's poor rural families. The first set of actions relates directly to coordination among researchers, extension groups, and farmers. However, the impact of this coordination will be limited without the other two sets of action, which include policies to expand commercial and market opportunities for African farmers and renewed commitment by both African governments and the U.S. government and other donors for long-term capacity building in African agriculture.

Research/Extension Coordination Actions

Beyond the considerable coordination already going on, there are eight specific technology areas where carefully targeted coordination of research/extension efforts, without additional resources, could yield improved results. These include:

- ? Participating as appropriate in the new African-led apex research coordination body;
- ? Facilitating African and IARC joint coordination and response to the recent CG review's Africa recommendation;
- ? Continuing and expanding pathbreaking U.S. land grant work, through the land grant university Collaborative Research Support Programs (CRSPs), to jointly identify priorities with Africans;

- ? Focusing the Africa portion of small grants programs on critical problem areas identified by Africans;
- ? Expanding electronic networking among African scientists and extension groups to best meet the needs of small-scale farmers;
- ? Supporting and expanding SPAAR's work on ensuring adequate gender considerations in all African agricultural research programs;
- ? Working to identify best practices in extension and agriculture technology transfer to small-scale female and male farmers;
- ? Expanding staff exchanges among USDA, USAID, NGOs, and international and African research and extension centers; and
- ? Working in a concerted way with African research and extension groups and other donors to achieve the environmental sustainability goals of the African Soil Fertility Initiative.

Policy and Other Actions to Expand Commercial and Market Opportunities for Small-Scale African Farmers

There are several policy and commercial-related areas where greater partner coordination could yield significant benefits. These policy conditions, if put into place, will create a much more favorable "enabling environment" for agricultural research and extension to have an impact. These policy conditions in which USAID, USDA, and their partners could enhance coordination at existing resource levels are:

- ? Working to expand African government commitment to agriculture in general;
- ? Using joint, coordinated USDA-USAID policy approaches to biotechnology, biosafety, globalization, and competitiveness, as they affect Africa;
- ? Working together to educate U.S. agribusiness regarding the investment climate in Africa; and
- ? Identifying new cash crop and food crop commercial opportunities to increase small-scale farmer incomes.

Long-Term Commitment to Capacity Building

The other set of conditions concerns a renewed effort on long-term capacity building for agricultural research and extension in sub-Saharan Africa. Without such an effort, additional coordination efforts beyond those mentioned will not bear fruit. African agricultural technology systems in research and extension are eroding, at the same time that the pressures of globalization and competitiveness are leading countries around the world in every other region to enhance their own capacities in agricultural technology research and extension.

Long-term capacity building requires first and foremost the African government financial and policy commitments mentioned above. However, even with such commitments, agricultural research and extension in Africa requires renewed bilateral commitment from external donors such as the United States in those areas where the expertise does not reside in Africa. These investments are particularly required in research management improvement, scientific training,

and university research linkages that go beyond what is available in a few short-term competitive small grants programs or regional networking and coordination activities.

On the U.S. side, such developments can only take place with a serious commitment to restore the U.S. leadership role in African agricultural research and extension. While the United States retains such a role in terms of international coordination for regional initiatives such as SPAAR, we have lost it at the level that is most important—the basic level of bilateral country research and extension programs involving strong public and private sector cooperation. Declining resources for agriculture, combined with a focus on short term results that USAID and the broader donor community have taken in response to declining resources, have not permitted the U.S. to maintain its past leadership role in bilateral agricultural research and extension in Africa.

The resources required for expansion, especially to mobilize U.S. leadership in addressing the African capacity problem, cannot be carved out of other areas or other parts of the current USAID budget or other areas of the U.S. international affairs budget (the 150 account). This expansion can only take place with an overall expansion in the 150 account.

The document could, but does not, develop a plan for the coordination that would be required—and it would be extensive—were this leadership role restored. Specific actions critical to capacity building requiring additional resources include the following:

- ? Funding larger U.S. technical NGOs to build extension capacity among local NGOs to meet the needs of small-scale farmers;
- ? Reinstating the FY 1998 Africa Food Security Initiative university linkages program that was discontinued due to funding constraints to ensure IARC-university joint research on high priority African farmer problems;
- ? Instituting an AFSI research fund to encourage bilateral USAID Missions to start funding institutional support to research; and
- ? Re-establishing a program linking U.S. land grant universities with key African research institutes and agricultural universities on a long-term basis for purposes of scientific exchange and faculty training.



V. Africa: Seeds of Hope Act and Non-Emergency Food Assistance Programs

A. Background

USAID uses food aid resources in ways that are consistent with the *Africa: Seeds of Hope Act*. Policies on the use of food aid emphasize the focus on those who are unable to meet their basic food needs. In its Food Aid and Food Security Policy Paper (February 1995), USAID prioritized its food assistance to both “South Asia and sub-Saharan Africa [as the] regions most affected by chronic food insecurity.” Moreover, in the U.S. Action Plan on Food Security (March 1999), the United States affirmed as a key priority for food aid the “targeting [of] a greater proportion of food aid to the most needy in the most chronically food insecure countries.” It is noted that of the 48 countries on the U.N.’s Least Developed Country (LDC) list, 33 are located in sub-Saharan Africa. Similarly, on the FAO’s list of 87 low-income, food-deficit countries (LIFDC) in the world, 41 are in sub-Saharan Africa.

It needs to be underscored, however, that the transaction costs of implementing food assistance programs in poor countries will be high. Few of the poorest countries possess the resources and experience to design, implement, and monitor food assistance projects or to provide technical support during implementation. In some cases, the government may not control the entire country because of civil war. In other countries, where there is peace and stability, the governments may simply not have sufficient resources to determine fully the need and scope for food interventions targeted to the poor, particularly if they live in remote areas of the country.

B. Trends in USAID P.L. 480 Non-Emergency Title II Assistance

Over the five-year period FY 1995-FY 1999, the following levels of P.L. 480 non-emergency food assistance have been directed to sub-Saharan Africa:

Fiscal Year	U.S.\$ (millions)
1995	78.2
1996	89.5
1997	117.3
1998	136.1
1999 (to date)	110.5

C. P.L. 480 Response to *Africa: Seeds of Hope Act*

The following outlines specific actions that are responsive to the *Africa: Seeds of Hope Act*.

- ? USAID takes into account local input and participation directly and through cooperating sponsors. Indigenous NGOs are important food aid partners for USAID in many African countries, and U.S. NGOs are being encouraged to partner with local groups.
- ? A special effort is being made to link P.L. 480 Title II resources to countries that are included in the Africa Food Security Initiative (AFSI). For FY 1999, Title II priority countries that are part of the Initiative's focus include Ethiopia, Mali, Malawi, Mozambique, and Uganda.
- ? Sixty-seven percent of FY 1998 Title III resources were targeted to three sub-Saharan African countries, namely Ethiopia, Eritrea, and Mozambique. It is envisioned that the bulk of Title III resources in FY 1999 will be similarly directed.
- ? USAID is seeking greater flexibility for program and evaluation plans, particularly planning for relief-to-development transition. USAID continues to encourage effective "relief exit strategies" for emergency activities. In FY 1998, emergency Title II assistance to sub-Saharan Africa equaled \$308.9 million. It is noted that transition and/or exit strategies were included in 73 percent of all 1998 emergency activity proposals. In FY 1999, USAID has approved Transition Activity Development Proposals (TAPs) for both Rwanda and Angola.



VI. The Bill Emerson Humanitarian Trust

The U.S. Action Plan on Food Security (released on March 26, 1999) affirms that “the Administration will implement the Bill Emerson Humanitarian Trust, which strengthens the Food Security Commodity Reserve (FSCR) to better respond to unanticipated emergency needs.” Specifically, “the Administration will seek authority to use Export Enhancement Program (EEP) funds uncommitted at the end of the fiscal year to purchase commodities, as appropriate, for replenishment of the Bill Emerson Humanitarian Trust.”



VII. Agricultural and Rural Development Activities of the Overseas Private Investment Corporation

USAID and the Overseas Private Investment Corporation (OPIC) have agreed to communicate and cooperate to identify opportunities that might be eligible for OPIC funding and relate to current USAID activities. For example:

- ? The USAID Global Bureau's Center for Economic Growth and Agriculture Development, Office of Agriculture and Food Security (G/EGAD/AFS) has identified a number of agribusiness projects that could potentially benefit from OPIC insurance and/or credit. G/EGAD/AFS staff will follow up with OPIC to discuss these and other opportunities as they arise;
- ? OPIC is discussing the possibility of assisting the development of a U.S.-based on-lending facility for microfinance activities in Africa. Funding could come from OPIC and by way of equity investments. In this context, it was agreed that OPIC would have further discussions with USAID's Microenterprise Development Program and discuss possible collaborations and cooperation;
- ? USAID's Office of Business Development and their Global Technology Network continuously generates leads from business entities in Africa looking for cooperation, investment, and other sorts of relationships with U.S. companies. OPIC and USAID will discuss further how this information flow can be put to its best use to identify opportunities for OPIC funding;
- ? Through its credit programs, primarily MSED, USAID has ongoing association with many private banks in East and Southern Africa. Through the management of small business loan guarantees with these banks, MSED and USAID Mission staff can work together to alert both the African based business and their bankers to the possibility of OPIC financial instruments; and
- ? OPIC offered its professional staff to conduct technical assistance with USAID partners where those partners would benefit from OPIC's expertise in credit and investment.

In summary, it was agreed that each party would benefit greatly from this cooperative exchange of information and expertise. USAID's presence overseas and its well established partnerships in Africa coupled with the possibilities of OPIC financial participation will greatly assist the achievement of the objectives of the *Africa: Seeds of Hope Act*. Both USAID and OPIC agreed to aggressively pursue the activities identified above and in the process be mutually attentive to other opportunities.



Annex 1: Summary Joint USAID/USDA Plan for Coordination on Agricultural Research and Extension in Africa

The *Africa: Seeds of Hope Act*'s Section 104 requires USAID and USDA to develop a collaborative plan to better coordinate and build on the strengths of U.S. and African resources in agricultural research and extension in serving the needs of smallholder farmers, women, and poor rural people in sub-Saharan Africa.

I. Complementary Skills and Mandates

USDA and USAID bring a complementary set of experience, skills, partnerships, and mandates to the problem of African agriculture. USDA, with its mandate to serve the needs of the U.S. food, farm, fiber, and consumer community, is interested in the benefits that greater U.S.-Africa agricultural trade and investment can bring to U.S. farmers, businesses, and consumers. In recent years, the traditional USDA view of this trade relationship has shifted, with USDA and its constituency groups recognizing the long-term trade benefits that can come from increasing the prosperity of the agricultural sector in overseas markets.

USDA also has enduring and decades-old partnerships with producer groups, agribusiness associations, consumer and safety groups, and the land grant university system. USDA, through its in-house agencies as well as its special relationship with U.S. land grant universities and agribusinesses, can access the strongest agricultural research and technology system in the world in all fields. Further, USDA has a major policy role and capability in creating legal, regulatory, trade, and policy frameworks ensuring that productive and safe food and agricultural products and technologies are widely available.

USAID's mandate in sub-Saharan Africa, as in other regions of the world, is to promote the sustainable development of countries in this region. Increasingly, USAID recognizes that achieving this long-term mandate also has economic benefits to the United States, as the agricultural research example given above and the experience of bringing USAID lessons to problems of U.S. cities, health care, and rural development, have demonstrated. USAID's sustained partnership with the international agricultural research centers (IARCs) and the 50 U.S. land grant universities and colleges making up the Collaborative Research Support Programs (CRSPs) represents a key resource in Africa's agricultural development.

As a result of its significant history of long-term staff presence in many Africa countries, USAID has long and enduring partnerships with governments and agricultural institutions in most African countries where it has USAID Missions, as well as very strong partnerships with a large number of U.S. and Africa NGOs. In many areas, including agriculture, USAID is seen by Africans as a strong partner in developing and sustaining regional organizations and approaches to solve problems, including in the agriculture sector and in the regional and subregional organizations responsible for African coordination of agricultural research. Finally, USAID has a strong and effective policy focus, and can often assist countries in designing

agricultural policies without the perception that USAID is pushing U.S. government short-term trading interests.

Both USAID and USDA have strong experience promoting a wide range of successful public-private partnerships in agriculture at home and around the world. Such partnerships have successfully created new opportunities for African farmers to put more cash in their pockets and more food on their tables.

II. Coordinating Efforts in Solving African Agricultural Problems

The February 24 Partner Consultation identified, and the Gaborone SPAAR and FARA meetings confirmed, that there are three significant areas where greater coordination can produce better results in African agricultural research and extension. The first area is in the area of technology development and transfer. Two other areas, however, are crucial: first, the development of markets that can provide the incentives that will encourage farmers to adopt new technologies; and second, African capacity-building to assure the sustainability of agricultural research in the region.

A. Coordinating Research, Extension, Technology Development, and Transfer

There is already considerable coordination between USDA and USAID on African agricultural research and extension, as well as among their US, international, and African partners. USDA technical expertise, USAID dollars and staff, and land grant university and IARC research advisors have taken a coordinated approach to a number of regional research and extension problems in the 1990s, in particular in the area of subregional and regional networking and collaboration. In addition, U.S. NGOs, land grant universities, and the international agricultural research centers have much more closely coordinated their activities and programs in recent years, with very solid impacts discussed in the body of this report.

Within the development assistance community, USAID—with the assistance of USDA technical experts—has expanded its role in donor coordination for African agricultural research and extension since the early 1990s through the SPAAR mechanism.

Within ongoing and existing efforts and resource levels, there are additional areas where carefully targeted coordination of research/extension efforts could yield additional results. Eight areas in particular were identified during the February 24 Partner Consultation and the Gaborone SPAAR and FARA meetings:

- ? Focusing small grants programs on critical problem areas identified by Africans;
- ? Expanding electronic networking;
- ? Supporting SPAAR's efforts to ensure adequate gender considerations in African research and extension;
- ? Working to identify best practices in extension and agricultural technology transfer
- ? Expanding staff exchanges among USDA, USAID, NGOs and International and African research and extension centers to enhance capacity building in cutting-edge science;
- ? Working with a range of partners to achieve the environmental goals of the Africa Soil Fertility Initiative;

- ? Participating as appropriate in the new African apex research coordination group expected to evolve from SPAAR and FARA under African leadership;
- ? Facilitating a coordinated IARC and African response to the CGIAR External Review Panel's Africa recommendation; and
- ? Continuing and expanding pathbreaking U.S. land grant work through the CRSPs to jointly identify priorities with African research networks.

Each of these initiatives is discussed in more detail below.

Focus Small Grants Programs on Critical Problems Identified by Africans

It is likely that at existing resource levels most U.S. land grant university involvement in African research will continue to be through a number of competitively awarded small grants programs funded by USAID or the USDA. USAID, USDA, and our partner institutions could manage such grants programs in ways that ensure that the Africa portion of those grants are made to those proposals that best address priorities and research areas jointly identified by the U.S. land grant university, African partner institutions and regional networks, and the international centers. Recent or ongoing grants programs that might be coordinated in this way include:

- ? The USAID University-IARC linkage program (lack of FY 1999 or FY 2000 funds for this program make it a candidate for FY 2001);
- ? The USAID supported university Association Liaison Office (ALO) small grants program; and
- ? USDA programs in support of international capacity building in the land grant universities, such as NASULGC grants and the recently authorized GASEPA role for USDA/CSREES.

Expanding Electronic Networking and Information Exchange

A number of U.S., international, and African partners are increasingly using electronic networking as a low cost way to improve coordination among researchers, as well as serving as an effective and cheap teaching and training tool. Programs such as USAID's AfricaLINK program (linking researchers into electronic networks) and the Leland Initiative's work with USAID and USDA (on African agribusiness connectivity) could be expanded within existing U.S. based programs, with no net increase in total resource levels. USAID and USDA could also facilitate or fund the modest costs of Cornell University's royalty free essential electronic library for certain African research institutes.

Expand Gender Considerations in SPAAR Support to Research and Extension

Current leadership of SPAAR has introduced gender as a policy issue into all considerations of agricultural research and agricultural technology transfer in Africa. The 1998 SPAAR work program included a broad analytical assessment of gender approaches in agricultural research in Africa. In 1999, gender considerations—and specifically a cataloging and dissemination of best practices—will become a significant area of concern, but currently is not fully funded by the coalition of SPAAR partners. USAID and USDA will keep gender on the agenda of

SPAAR, ensure adequate funding, and assist in the major efforts of SPAAR to bring gender approaches to research into the mainstream of all African research programs and institutes.

Identify and Disseminate Best Practices in Extension and Agricultural Technology Transfer

Most public sector extension agencies in Africa are either moribund or ineffective. In their place, a wide diversity of NGOs, farmer associations, private firms, and agricultural research agencies are trying many different extension approaches with varying results. However, in contrast to the situation with SPAAR for agricultural research, there is no clearinghouse or consensus on best practices and direction in agricultural extension in Africa. Nor is there a shared vision for appropriate public and private roles in extension. It is recommended that USAID and USDA, together with their public and private U.S., international, NGO, and African partners, identify and disseminate “best practices” in agricultural extension, including how to scale up from small project enclaves. The Africa Bureau of USAID will initiate one activity to identify these best practices through a network on rural service and finance delivery (including agricultural extension services) which is starting in FY99. For maximum impact, any U.S. work in this area should be closely coordinated with SPAAR, FARA, and/or the three subregional research coordinating bodies in sub-Saharan Africa.

Expanding Staff Exchanges

Currently USAID finances significant staff exchanges by which USDA staff provide expert advice on agricultural research and extension to USAID and to various African partners. USDA’s Agricultural Research Center finances outposting of some of its scientists to international agricultural research centers. Such exchanges could expand in modest ways among the various USDA and USAID partners, e.g., by having USDA sit on CRSP boards, by inviting NGO, private sector, and other partners to participate in some role in USAID’s Office of Agriculture and Food Security and Office of Sustainable Development or in USDA/CSREES.

Support the African Soil Fertility Initiative

The environmental problem that is probably felt the most acutely among African farmers is the decline in soil fertility and productivity. With a somewhat vague mandate and mechanism, the Africa Soil Fertility Initiative was started in 1996 to address this problem, but has not as yet led to identifiable operational approaches and impacts. USAID and USDA will provide support to helping the Africa Soil Fertility Initiative become operational in ways that provide sustainable answers to the soil fertility problems African farmers face.

Participate as Appropriate in the New African-Led Apex Research Coordination Body

One of the most important decisions of the SPAAR and FARA meetings in Gaborone was to create a new African-led apex research coordination body that would evolve out of SPAAR and FARA. This body will not itself coordinate research projects but facilitate partnership, linkages, and the strengthening of African capacity to participate as a full scientific partner in agricultural research efforts in Africa. It will combine the best of SPAAR and FARA under African leadership, while providing a more conducive environment for the kind of long-term

partnerships that IARCS and U.S. universities seek in Africa. USAID and USDA, together with IARCS and universities, will need to participate in or coordinate with this apex coordination mechanism as it evolves out of SPAAR and FARA.

Facilitate African and IARC Joint Consultation and Response to CGIAR's External Review Panel Recommendation on Africa

At the Gaborone SPAAR and FARA meeting there was a clear consensus among African research leaders and the international centers that a new CGIAR initiative on Africa was inappropriate because the plethora of initiatives in Africa currently threatens to detract from the time needed for research to really produce results that improve people's lives. There was also consensus however, and an explicit invitation from the ranking IARC director present at the meetings, that African research groups, represented by CORAF, ASARECA, and SACCAR, needed to fully participate in IARC consultations in May 1999 regarding the actions the IARCs should take in response to this recommendation.

Continue and Expand Joint Research Priority Setting

Some commodity networks, some international centers, some of the CRSPs, and NGOs, farmer representatives, and African agribusiness have engaged in coordinated joint priority setting with private sector research clients (farmers and firms) over the past two years for some commodities in East and West Africa. Such collaborative research planning and priority setting should be emulated by other groups, and become standard practice among U.S. land grant universities and other advanced research institutes, international centers, African research groups, and others engaged in research planning among the other commodities and regions. U.S.-funded land grant university and IARC personnel can serve key functions in this process.

Taking account of existing levels of collaboration, and of current programs, we believe that the eight actions outlined above (plus the additional policy and commercial market areas in the section below) could practically be done with significant impact, and without compromising ongoing programs. Expanded coordination beyond this level, without additional efforts in institution building and capacity building, and without additional programs around which coordination could coalesce, would serve little purpose and in some cases squander time and scarce resources.

B. Market and Commercial Incentives for Farmers to Adopt New Technologies

Without functioning markets that provide opportunities for farm families to sell their goods—putting more cash in their pockets or more food on the table—agricultural research and extension in Africa will have limited impact. African governments have made great strides in developing appropriate policies, infrastructure, and information systems, but there remains much to be done, both within the purview of those governments as well as by the world trading system and by the international and U.S. private sector. The policy and commercial environment is a critical determinant of whether investments, coordination, and other activities in agricultural research and extension will have the desired outcome.

The Sasakawa-Global 2000 (SG2000) program has demonstrated that conditions beyond the level of farm technology affect the benefits farmers receive from technology development and

extension. A major success in several African countries, SG2000 has produced major increases in crop harvests, but it has encountered food market or fertilizer delivery failures as the key constraint to further expansion in some areas. There are several ways in which USAID, USDA, and their partners could better work together in an effective, coordinated approach to help facilitate positive changes in some policies.

African Government Commitment to Agriculture

Commitment to agriculture entails two types of policies: those that enhance institutional pluralism and farmer and local, small agribusiness-oriented market economies; and those that lead to greater government investment in agriculture. On both these counts, most African governments have made a start but have not gone far enough.

Through coordinated action among SPAAR, U.S. land grant universities, NGOs, and others, various actor could raise with African government decision-makers the need for “staying the course” on open agricultural markets, creating a conducive environment for private seed and fertilizer dealers to deliver the goods, and on investing more in their agricultural sectors. The most effective way through which USAID and USDA will raise these issues is through international and African policy for a such as the Global Coalition for Africa, the Special Program for Africa, the U.S.-E.U New Transatlantic Agenda, and other such fora.

USDA-USAID Coordination on Trade, Competitiveness, and Globalization Issues

A set of policies that will have a profound effect on all developing countries are the bundle of World Trade Organization-type developments, regulations, laws, treaties, and policies that affect agricultural imports and exports. USDA and USAID share the same long-term objectives, but each brings unique strengths to these policy discussions and should more carefully and jointly plan their activities and approaches. USDA’s strengths are a depth of analytical capability, knowledge of how such policies are to be implemented in the United States, and a clear, view of where U.S. producer and consumer interests lie in these discussions. USAID’s strengths have to do with its overseas presence, the trust it embodies, and the sense by Africans that USAID is an honest broker not trying to push the short term U.S. trade agenda.

By joining our two strengths, whose differences essentially involve looking at policy from the perspective of the U.S. (USDA) or the African farmer and consumer (USAID), the U.S. government would have a more effective tool to further both our trade and our development interests in the short and long term. The specific trade related issues where better coordination could increase benefits, are just those issues where many African policymakers are unclear what they should do, such as biotechnology, food safety, agricultural trade and WTO, intellectual property rights, and non-tariff barriers, and where they eagerly seek U.S. government policy and technical advice.

Educating U.S. Agribusiness Regarding Investment in Africa

Finally, the February 24 Partner Consultation noted that while some U.S. firms are interested in investing in Africa, most do not. The consultation suggested that USAID and USDA could work together with our other partners resident in Africa, to help educate the U.S. private sector regarding the general investment climate in Africa, which is far better than most people think.

One example of how the various partners could jointly work to this end is the 1998 Ghana business investment consultation hosted by North Carolina A&T University, in which USAID, land grant university, U.S. and Ghanaian business personnel, and USDA staff facilitated an extremely useful session for a broad range of U.S. business. USDA and USAID could work together with their partners building on a range of recent experiences to better education the U.S. agribusiness sector.

USAID and USDA Work with African Partners to Identify Commercial Agricultural Opportunities—in Both Food Crops and Cash Crops—from Which African Farmers Can Benefit

USAID, USDA, together with our partners in the U.S. private sector, NGO, and university communities have a wealth of experience in the United States and abroad on how to create new commercial opportunities for rural people. In Africa, many of these opportunities, as is well documented, relate to cash crop production and its complementarity with and support to (not competition with) food crop production. U.S. and African agribusiness, U.S. cooperative development organizations, and African farmers groups should work more closely together, in part with Africa Food Security Initiative funding, to identify and create these commercial opportunities to help African farmers.

C. Commitment—and Renewed U.S. Leadership—for Capacity Building in African Research and Extension

Without a renewed effort on long-term capacity building for agricultural research and extension in Africa, additional coordination efforts beyond those mentioned above will not bear fruit. African agricultural technology systems in research and extension are eroding, at the same time that the pressures of globalization and competitiveness are leading countries around the world in every other region to enhance their own capacities in agricultural technology research and extension.

Long-term capacity building requires, first and foremost, the African government financial and policy commitments. Expanding African government funding for agricultural research is essential. As the February 24 Partner Consultation noted with some concern, funding trends by African governments for agricultural research have declined significantly. Without a substantially greater financial commitment by African governments, foreign donor support for research institutes cannot be sustainable. USAID, USDA, SPAAR and various members of the SPAAR coalition could build on the experience of the May 1998 Ministerial meeting (in which these issues were first raised with African ministers of finance) to discuss agricultural research impact and funding needs with the appropriate actors.

However, even with such commitments, agricultural research and extension in Africa require renewed bilateral commitment from external donors such as the U.S. in those areas where the expertise does not reside in Africa, in particular in research management improvement, scientific training, and university research linkages that go beyond what is available in a few short-term competitive small grants programs or regional networking and coordination activities.

On the U.S. side, such developments can only take place with a serious commitment to restore the U.S. leadership role in African agricultural research and extension. While the United States

retains such a role in terms of international coordination for regional initiatives such as SPAAR, we have lost it at the level that is most important—the basic level of bilateral country research and extension programs involving strong public and private sector cooperation. Declining resources for agriculture, combined with a focus on short term results that USAID and the broader donor community have taken in response to declining resources, have not permitted the U.S. to maintain its past leadership role in bilateral agricultural research and extension in Africa.

The resources required for expansion, especially to mobilize U.S. leadership in addressing the African capacity problem, cannot be carved out of other areas or other parts of the current USAID budget or other areas of the U.S. international affairs budget (the 150 account). This expansion can only take place with an overall expansion in the 150 account.

The document could, but does not, develop a plan for the coordination that would be required—and it would be extensive—were this leadership role restored. Specific actions critical to capacity building requiring additional resources include the following:

Help U.S. Technical NGOs Build Local Extension Capacity

Several U.S. NGOs have become very strong and effective in agricultural extension in Africa. These NGOs have the knowledge, experience, and staff to share their successful experience in ways that could help create an enduring local capacity both in local NGOs and among government and business agencies engaged in agricultural extension. However, these U.S. NGOs have neither the mandate nor the resources to serve alone in this function. There may be ways in which some of the various U.S., international, and African partners in agricultural research (IARCs, universities, and private U.S. and African agribusiness firms) can coordinate with U.S. NGOs in helping to build sustainable local capacity—in government, NGO, co-op, and business groups—in effective agricultural extension, building on the best practices recommendation above.

Reinstating the FY 1998 AFSI Global University Linkages Program

Under AFSI, a new Global Program was created in FY1998 to enhance the food security synergies and impact of universities and international agricultural research centers working in Africa. This built on and expanded earlier Global Program initiatives to ensure that international agricultural research centers and U.S. universities cooperate more closely in solving critical food security problems. Unfortunately, reductions in the Global Program agriculture budget did not permit continuation of funding of the AFSI university linkages program into FY1999. A renewal of U.S. leadership and funding for capacity building in African research would permit reinstating this program and expanding its impact on African researchers and farmers.

Instituting an AFSI Research Fund to Encourage Bilateral USAID Support to Capacity Building and Research

USAID missions in Africa, even those few that provide some limited support for agricultural research, are not contributing to enhanced capacity for research institutes to meet the needs of small-scale farmers. Nor are USAID missions, with current staffing constraints, equipped to do

this even if the resources were available. An AFSI research fund could assist in creating modest but long-term capacity building activities in support of various African research institutes in individual African countries.

Reestablishing Links between U.S. Land Grant Institutions and African Research Institutes and Agricultural Universities

While the era of large, long-term U.S. university technical assistance teams in Africa has ended, there is a major need for a new relationship linking African universities and research institutes into the U.S. land grant system on a long-term basis. Such linkages continue on a small scale through a variety of programs, but with few exceptions not at the scale required to build institutional capacity in Africa to identify and address the needs of small-scale farmers.



**Joint USAID/USDA Plan for Coordinating Agricultural
Research and Extension in Africa:
Full Report**

**Annex 2 to the Implementation Report on the
*Africa: Seeds of Hope Act***

*Submitted by USAID
May 1999*



USDA-USAID Plan for Building on and Coordinating Research and Extension Activities of U.S.-Funded Entities (U.S. Land Grant Universities and International Agricultural Research Centers) with National Agricultural Research and Extension in Sub-Saharan Africa

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List of Abbreviations

ACDI - Agricultural Cooperative Development International
AFSI - Africa Food Security Initiative
ASARECA - Association for Strengthening Agricultural Research in East and Central Africa
BfW - Bread for the World
CDO - Cooperative Development Organization
CGIAR - Consultative Group on International Agriculture Research
CIMMYT - International Maize and Wheat Institute
CORAF - Conférence des Responsables de la Recherche Agricole in Afrique de l’Ouest et du Centre
CRSP - Collaborative Research Support Program
CSREES - Cooperative State Research, Education, and Extension Service
E.U. - European Union
FARA - Forum for Agricultural Research in Africa
FFA - Frameworks for Action
GASEPA - Globalizing Agricultural Science and Education Programs for America
GPRA - Government Performance Review Act
IARC - International Agricultural Research Center
IFPRI - International Food Policy Research Institute
IITA - International Institute for Tropical Agriculture
INTSORMIL - International Sorghum and Millet
MOU - Memo of Understanding
NASULGC - National Association of State Universities and Land Grant Colleges
NGO – Non-Governmental Organization
SACCAR - Southern Africa Coordinating Council for Agricultural Research
SFI - Sustainable Financing Initiative
SoH - *Africa: Seeds of Hope Act*
SPAAR - Special Program for African Agricultural Research
SRO - Subregional Organizations
USDA - United States Department of Agriculture
USAID - United States Agency for International Development
WFS - World Food Summit
WTO - World Trade Organization
WVRD - World Vision Relief and Development Incorporated

I. Summary and Conclusions

Background

New farming techniques and seed varieties are essential to sustain Africa’s natural resource base and increase the incomes of smallscale farmers—female and male—in sub-Saharan Africa. Scientific research, combined with community discussion and participation, is the key to developing new farming techniques and better seeds. Linking researchers to farmers’ associations, local agribusiness

firms, NGOs, and other sources of agricultural extension are the only way to get new techniques and seeds to enough farmers to make a difference.

All over Africa, new techniques and seeds are being developed and getting out to farmers' fields. Indeed, thanks to USAID, USDA, U.S. land grant institutions, international agricultural research centers, NGOs and African government and other donor investments, there has been a significant impact from past agricultural research and extension efforts. Every dollar invested in African agricultural research and extension has yielded \$5.00 in economic benefits, most of those benefits originating with smallscale farmers. Such high economic returns are comparable to those found in other parts of the world. These past agricultural technology investments—together with an improved economic policy environment for farmers—are responsible for a turnaround in the 1990s. Since the early 1990s, for the first time in almost three decades, percapita foodgrain and export crop production have increased.

In on-the-ground, practical terms, these investments have been responsible for improving the lives of tens of millions of Africa's rural men and women. For example, the cassava crop in East and Southern Africa was saved from three devastating disease and pest problems. Major increases in corn productivity were achieved. South African researchers were able to turn their considerable strengths towards the needs of that country's poor majority. Productive agricultural in such wartorn countries as Rwanda and Mozambique was reestablished as soon as hostilities ceased. And Ethiopia moved from famine as recent as 10 years ago to surplus production by doubling and tripling the land's productivity. Without the already considerable success of research and extension in Africa, the problems of poverty, hunger, malnutrition, and resulting childhood death rates would be much worse than they currently are.

However, these increases are not enough to save Africa from continued poverty and worsening food shortages. Many of the techniques and seeds developed to date are not appropriate to the needs of Africa's female farmers. In addition, projections of food requirements for the next two or more decades show that—despite the recent progress—major new increases in African farm productivity must occur to protect rural people from getting poorer, urban people from higher food prices, and countries from suffering major food crises. Nor are current farming techniques adequate to address Africa's growing rural environmental problems related to soil degradation, water availability, and toxic chemical residues. Despite major progress that all can take pride in, Africa's research and extension systems, and donor and African governments supporting them, are not prepared for the challenges ahead.

Coordination Mechanisms and Consultations

The *Africa: Seeds of Hope Act* recognizes the essential role that better coordinated and funded agricultural research must play in meeting these challenges. It calls on the USAID Administrator, in consultation with USDA, U.S. land grant universities, international agricultural research centers, NGOs, and African research and extension groups, to develop a plan for better coordination of agricultural research and extension in Africa. The plan presented herein has been developed in close coordination with all of those partners. The plan originated in a daylong partner consultation on February 24, 1999, jointly hosted by USAID, USDA, and the National Association of State

Universities and Land Grant Colleges. That partner consultation involved a broad range of representatives of land grant universities, NGOs and cooperative development organizations, international agricultural research centers, and Africa research and technology groups, as well as the President's Food Security Advisory Committee.

A second consultation took place in Gaborone, Botswana, during the March 5-9 meeting of the Forum for Agricultural Research in Africa (FARA) and the Special Program for African Agricultural Research (SPAAR), an annual meeting with participation from almost every major sub-Saharan African agricultural institute and donor, with USDA and USAID participation, together with representatives from African NGOs and farmers' and women's groups, agribusiness associations, and universities and international research centers.

There was a clear consensus among participants in both sets of consultations that there are some marginal gains to be made from better coordination and several new coordination recommendations are contained in the plan presented here. It is important to note that USDA and USAID have longstanding joint staffing arrangements that ensure strong agricultural research coordination, and that U.S., international, and African participants in African agricultural research and extension are represented in the very effective FARA and SPAAR coordination groups, and subregional African organizations and networks that are related to SPAAR and FARA. The consensus was strong among all partners consulted by USDA and USAID that new coordination mechanisms and new initiatives are not the most effective way to address the fundamental problems of agricultural research and extension in Africa.

These fundamental problems were described by African representatives to the February 24 Partner Consultation as follows:

- ? Bureaucratic and state-led approaches, in which smallscale farmers (especially women) are seldom consulted and their needs often overlooked;
- ? Supply-driven rather than demand-driven priorities, which sometime lead to identifying solutions in search of a problem rather than starting from client based needs among female and male farmers, businesses serving the needs of farmers, and NGOs and farmer associations, and that often overlook the environmental sustainability requirements of new farming techniques;
- ? Lack of real, equal partnerships between African and international scientists, between researchers, extension agents, and users of agricultural technology, and between farmer and business representatives and research systems;
- ? Poor planning and incentives to perform, leading to a failure to target limited scientific and extension capacity on a small set of top priority agricultural productivity problems;
- ? Funding crisis and erosion of capacity, resulting in inadequate resources for research, serious morale problems among African scientific and extension officers, and lack of new, young scientific talent working in agricultural research and extension, both in the United States and in Africa;
- ? Weak technology transfer and extension systems that are unable to get productive techniques to significant numbers of farmers without the "push" of a project, donor, or NGO; and

- ? Isolated project and NGO enclaves, in which successful extension approaches can lead to local impact that is not replicable due to high cost.

The problem of erosion of capacity and the funding crisis is in a sense key to most of the other problems. After peaking in the mid 1980s, donor support for African agricultural research and extension has been almost cut in half. At the same time, African governments, with a handful of exceptions, have been unwilling to provide ongoing operating budgets commensurate with current staff and facilities, nor has there been much success in expanding broad and sustained private sector agricultural research funding. The percentage of agriculture GDP going to agricultural research in Africa has fallen precipitously since the mid 1980s, reflecting a failure of both donors and African governments to follow through on earlier investments.

The groups involved in SPAAR have identified six principles to reform agricultural research in Africa; USAID with USDA technical expertise is a significant participant in helping African research groups and their U.S. and international partners put these principles into action. The February 24 Partner Consultation came to conclusions similar to these reform principles. The principles are:

- ? Rigorous and participatory priority setting involving female and male farmers, farmer associations, local agribusiness firms and NGOs in setting agricultural research priorities;
- ? Consolidated and sustainable funding, so that reliable levels of public funds (African or donor funds) go only to research that the private sector cannot pay for;
- ? Management capacity building and accountability to ensure that priority research identified by farmers is well funded and managed;
- ? Country coalition building and support groups to ensure broad support for funding and management oversight of research and extension;
- ? Linkages among farmers, NGOs, local firms serving rural people, research, and extension; and
- ? Regionalization of research and international collaboration, to ensure that farmers in one country have access to techniques and seeds from another country as quickly as possible.

The February 24 Partner Consultation recommended that a plan for better coordination among U.S. supported American and international partners with African research and extension groups must be built on well known principles related to the needs, strengths, and mutual respect required of each partner in any coordinated effort. The subsequent Gaborone discussions underscored this point and emphasized the need for coordination to be led and managed by the coordination and priority setting mechanisms that have been set up by African stakeholders in agricultural research and extension. In addition, both sets of consultations underlined the need for longterm commitment and that coordination without a strong institutional capacity among all the partners is ineffective. Partners requiring additional institutional strengthening include farmers' organizations, public and private sector research institutions, local NGOs, agricultural training institutions, and various groups involved in agricultural extension. Without finishing the job of institution building, capacity building, training, and management improvement among African agricultural research and extension agencies, significant new directions in U.S. efforts in coordination will yield little fruit.

Actions Required to Expand the Impact of Agricultural Research and Extension

Based on the above analysis, three sets of action are necessary to expand the impact of agricultural research and extension on the well being of sub-Saharan Africa's poor rural families. The first set of actions related directly to coordination among researchers, extension groups and farmers. However, the impact of this coordination will be limited without the other two sets of actions, which include policies to expand commercial and market opportunities for African farmers, and renewed commitment by both African governments and the U.S. government and other donors for longterm capacity building in African agriculture.

Research/Extension Coordination Actions

Beyond the considerable coordination already going on, there are eight specific technology areas where carefully targeted coordination of research/extension efforts—without additional resources—could yield additional results. These include:

- ? Participating as appropriate in the new African led apex research coordination body;
- ? Facilitating African and IARC joint coordination and response to the recent Africa recommendation in the CG review;
- ? Continuing and expanding pathbreaking U.S. land grant work—through the land grant university Collaborative Research Support Programs (CRSPs)—to jointly identify priorities with Africans;
- ? Focusing the Africa portion of small grants programs on critical problem areas identified by Africans;
- ? Expanding electronic networking among African scientists and extension groups to best meet the needs of small farmers;
- ? Supporting and expanding SPAAR's work on ensuring adequate gender considerations in all African agricultural research programs;
- ? Working to identify best practices in extension and agriculture technology transfer to small scale female and male farmers;
- ? Expanding staff exchanges among USDA, USAID, NGOs, and international and African research and extension centers; and
- ? Working in a concerted way with African research and extension groups and other donors to achieve the environmental sustainability goals of the African Soil Fertility Initiative.

Policy and Other Actions to Expand Commercial and Market Opportunities for Small-Scale African Farmers

There are several policy and commercial related areas here where greater partner coordination could yield significant benefits. These policy conditions, if put into place, will create a much more favorable “enabling environment” for agricultural research and extension to have an impact. These policy conditions in which USAID and USDA and their partners could enhance coordination at existing resource levels are:

- ? Working to expand African government commitment to agriculture in general;

- ? Supporting joint, coordinated USDA-USAID policy approaches to biotechnology, biosafety, globalization, and competitiveness, as they affect Africa;
- ? Working together to educate U.S. agribusiness regarding the investment climate in Africa; and
- ? Identifying new cash crop and food crop commercial opportunities to increase small farmer incomes.

Long-Term Commitment to Capacity Building

The other set of conditions concerns a renewed effort on long-term capacity building for agricultural research and extension in sub-Saharan Africa. Without such an effort, additional coordination efforts beyond those mentioned will not bear fruit. African agricultural technology systems in research and extension are eroding, at the same time that the pressures of globalization and competitiveness are leading countries around the world in every other region to enhance their own capacities in agricultural technology research and extension.

Long-term capacity building requires first and foremost the African government financial and policy commitments mentioned above. However, even with such commitments, agricultural research and extension in Africa requires renewed bilateral commitment from external donors such as the United States in those areas where the expertise does not reside in Africa. These investments are particularly required in research management, scientific training, and university research linkages that go beyond what is available in a few short-term, competitive small-grants programs or regional networking and coordination activities.

On the U.S. side, such developments can only take place with a serious commitment to restore the U.S. leadership role in African agricultural research and extension. While the United States retains such a role in terms of international coordination for regional initiatives such as SPAAR, we have lost it at the level that is most important—the basic level of bilateral country research and extension programs involving strong public and private sector cooperation. Declining resources for agriculture, combined with a focus on short term results that USAID and the broader donor community have taken in response to declining resources, have not permitted the U.S. to maintain its past leadership role in bilateral agricultural research and extension in Africa.

The resources required for expansion, especially to mobilize U.S. leadership in addressing the African capacity problem, cannot be carved out of other areas or other parts of the current USAID budget or other areas of the U.S. international affairs budget (the 150 account). This expansion can only take place with an overall expansion in the 150 account.

The document could, but does not, develop a plan for the coordination that would be required—and it would be extensive—were this leadership role restored. Specific actions critical to capacity building requiring additional resources include the following:

- ? Funding larger U.S. technical NGOs build extension capacity among local NGOs to meet the needs of small-scale farmers;

- ? Reinstating the FY 1998 Africa Food Security Initiative university linkages program that was discontinued due to funding constraints to ensure IARC-university joint research on high priority African farmer problems;
- ? Instituting an AFSI research fund to encourage bilateral USAID missions to start funding institutional support to research; and
- ? Reestablishing a program linking U.S. land grant universities with key African research institutes and agricultural universities on a longterm basis for purposes of scientific exchange and faculty training.

II. Background

A. The World Food Summit (WFS) and Reducing Hunger in Sub-Saharan Africa

The U.S. government is committed to the goal of the WFS to cut hunger in half worldwide by the year 2015. In order to implement this commitment, the U.S. government has developed a comprehensive Food Security Action Plan. The U.S. action plan devotes particular attention to problems of African hunger, drawing upon a number of mechanisms including: the USAID Africa Food Security Initiative (AFSI); greater attention to agricultural research, extension, technology and trade; and the *Africa: Seeds of Hope Act*. Such approaches are critically important to achieving food security in Africa, but will succeed only to the extent that they involve rural people, men and women, in the setting of priorities for research to respond to.

The *Africa: Seeds of Hope Act* was passed in November 1998, with support from a broad coalition of U.S. groups. They represent the broad array of U.S. foreign policy interests for reducing hunger and improving smallholder agriculture in sub-Saharan Africa.

One set of groups—the U.S. agribusiness, farm producer, and land grant university community—represents the U.S. economic and trade interest in a prosperous Africa. The fastest growing importers of U.S. farm commodities in the past two decades have been precisely those developing countries that have succeeded in ending widespread hunger and bringing prosperity to their people. U.S. investments of \$137 million in improving food crop varieties in poor countries around the world have already returned more than a hundred times more economic benefits (over \$14 billion) to the U.S. farm economy as a result of genetic improvements to U.S. varieties due to our access to foreign crop varieties. Reducing hunger and creating prosperity in Africa is a critical element in expanding U.S. trade and investment in Africa.

Another set of groups—which support greater peace and stability in Africa and stronger U.S.-Africa ties—sees U.S. foreign policy linkage between the ability of African countries to improve the lives of their citizens through a prosperous rural sector, and the peace, stability, and economic integration required for Africa to succeed in the new global economy. These groups also see the very close relationship between Africa's success in feeding its people and sustainable democratic institutions.

A third set of groups—NGOs, religious groups, and hunger groups—is concerned with humanitarian issues, including hunger, health, and justice. These groups recognize the close relationship between prosperous smallholder agriculture and the U.S. government goals of reduced hunger and improved prospects for healthy children in Africa. Increasing the number of African

children who survive into adulthood requires increasing the number of children who have enough nutritious food to eat.

B. The *Africa: Seeds of Hope Act* and Agricultural Research and Extension

The *Africa: Seeds of Hope Act* directs USAID and USDA to increase attention to smallholder farmers, female farmers, and poor rural people in sub-Saharan Africa. The Act requires USAID and USDA to jointly prepare a plan to better coordinate and build on the strengths of U.S. and African resources in agricultural research and extension in serving the needs of these groups in Africa. The specific resources to be coordinated are the resources supported by the U.S. government including the U.S. land grant university system and the international agricultural research centers, and African research and extension groups. The Act requires specifically that the plan address both the needs of smallholder farmers and the skill requirements of those who serve them (researchers, extension agents, and agribusinesspersons); that it consider new technologies to increase productivity; and that efforts focus on sustainable agricultural practices and climatic adaptability.

C. Complementary USAID and USDA Skills and Mandates

USDA and USAID bring a complementary set of experience, skills, partnerships, and mandates to the problem of African agriculture. USDA—with its mandate to serve the needs of the U.S. food, farm, fiber, and consumer community—is interested in the benefits that greater U.S.-Africa agricultural trade and investment can bring to U.S. farmers, businesses, and consumers. In recent years, the traditional USDA view of this trade relationship has shifted, with USDA and its constituency groups recognizing the long-term trade benefits that can come from increasing the prosperity of the agricultural sector in overseas markets. USDA has enduring and decades-old partnerships with producer groups, agribusiness associations, consumer and safety groups, and the land grant university system. USDA—through its in house agencies as well as its special relationship with U.S. land grant universities and agribusinesses—can access the strongest agricultural research and technology system in the world in all fields. Finally, USDA has a major policy role and capability in creating legal, regulatory, trade, and policy frameworks ensuring that productive and safe food and agricultural products and technologies are widely available.

USAID's mandate in sub-Saharan Africa, as in other regions of the world, is first and foremost to promote the sustainable development of countries in this region. Increasingly, USAID recognizes that achieving this longterm mandate also has economic benefits to the United States, as the agricultural research example given above and the experience of bringing USAID lessons to problems of U.S. cities, health care, and rural development, have demonstrated. USAID's sustained partnership with the international agricultural research centers (IARCs) and the 50 U.S. land grant universities and colleges making up the Collaborative Research Support Programs (CRSPs) represents a key resource in Africa's agricultural development. As a result of its significant history of long-term staff presence in many Africa countries, USAID has long and enduring partnerships with governments and agricultural institutions in most African countries where it has USAID Missions, as well as very strong partnerships with a large number of U.S. and Africa NGOs. In many areas, including agriculture, USAID is seen by Africans as a strong partner in developing and sustaining regional organizations and approaches to solve problems, including in the agriculture sector and in

the regional and subregional organizations responsible for African coordination of agricultural research. Finally, USAID has a strong and effective policy focus, and can often assist countries in designing agricultural policies without the perception that USAID is pushing U.S. government short-term trading interests.

Both USAID and USDA have strong experience promoting a wide range of successful public-private partnerships in agriculture at home and around the world. Such partnerships have successfully created new opportunities for African farmers to put more cash in their pockets and more food on their tables.

D. Partner Consultation and the Process of Preparing the Plan

Complying with the Seeds of Hope Act would be impossible without significant consultation by USAID and USDA with their partners, since the Act calls for better coordination among these partners. On February 24, 1999, a day-long consultation took place, jointly chaired and organized by USDA and USAID. This consultation included U.S. land grant universities associated with the USAID CRSPs and USDA's CSREES; International Agricultural Research Centers; U.S. agribusiness representatives; NGOs working in Africa agriculture; Bread for the World; and representatives of African research and extension groups. Out of that meeting came an early draft of the plan presented herein.

The draft plan was subsequently discussed and amended during the week of March 8, 1999, in Gaborone, Botswana, at the joint annual meetings of the Forum for Agricultural Research in Africa (FARA), grouping all national and regional agricultural research groups in Africa, and the Special Program for African Agricultural Research (SPAAR), which groups all the members of FARA together with donors, NGOs, representatives of African agribusiness and farmer groups, international agricultural research centers, and representatives of U.S. and European agricultural universities and other advanced research institutes. The U.S. government, through USAID and USDA, have played a key role working with other donors and African groups to turn SPAAR and FARA over the past nine years into an important agricultural research and extension coordination mechanism in Africa.

Beyond the new coordination mechanisms identified in the U.S. partner consultation, partners in Gaborone identified several additional coordination mechanisms. These include creating an apex—an African-owned body responsible for facilitating coordination of African agricultural research; broadening the coalition of participants in SPAAR, FARA, and this new apex coordination body; and in the short-term creating a coordination mechanism for key African regional and subregional research coordination groups to jointly develop with the International Agricultural Research Centers an operational response to the recent CGIAR external review panel's recommendation ("Recommendation 10") to devote more attention to Africa's agricultural problems. The revision, with these additions from the Gaborone partnership consultation, was then passed among participants at the original February 24 Partner Consultation meeting for any final comments and amendments.

The final draft was then submitted to USAID and USDA senior management for any final comments and submission to the Congress by May 13, 1999. While a longer drafting and consultative process would have resulted in a somewhat more detailed plan, the process engaged in has nevertheless revealed the key areas where increased coordination will yield benefits, and USDA and USAID wanted the plan to be submitted together with the broader USAID Africa Seeds of Hope Report by the May 13, 1999, deadline for that report, in order to permit the most fruitful Congressional hearing in spring 1999 on Administration implementation of the Act.

E. Organization of the Plan

The rest of this report is organized around the following points: The current situation of African agricultural research and extension, including major problems as well as impact to date from the already considerable U.S.-African research coordination efforts currently taking place (section II); requirements for the coordination plan (section III); a plan for improved coordination on agricultural research and extension, including additional conditions required for better coordination to have the desired impact in reducing hunger and increasing rural incomes and prosperity (section IV). The overall summary and conclusions of the plan are presented up front in the report and also serve as one section of the broader May 13, 1999, USAID report to the Congress on Administration progress in implementing the *Africa: Seeds of Hope Act*.

III. The Current Situation of African Agricultural Research and Extension

A. Agricultural Research and Extension in Africa are Already Having a Major Impact

Agricultural research and extension in subSaharan Africa, despite major problems and continued hunger in Africa, have nevertheless had significant impact to date. They have permitted a major upturn in per capita food production and agricultural exports since the early 1990s for the first time in three decades. More generally, the approximately 150 studies of research and extension impacts in Africa show that the economic returns to research and extension are greater than 50 percent (every dollar spent on research returns \$5.00 in economic benefits). Compared to the interest due on World Bank loans for example (7 percent), and the return from other investments, this is an impressive rate of return. What is more impressive is that, contrary to conventional wisdom, this is a return comparable to the levels seen in other parts of the world. Annex E documents these research impacts.

These returns can be illustrated by a number of “success stories” for research in Africa. Few of these successes would have been possible without strong collaboration among a range of partners, including strong public sector-private sector cooperation. In addition, many of these successes were facilitated by African governments’ growing commitment to policies that promote market oriented growth, and the resulting increase in commercial opportunities for farmers to purchase inputs when and where they need them and to sell their produce at a profit. Successes include: The International Institute for Tropical Agriculture (IITA), funded by USAID and other donors, works with a number of African scientists to find an environmentally sustainable way of saving cassava from the ravages of the mealy bug and more recently the spider mite and mosaic virus. These pests threatened to destroy over half of the cassava crop for tens of millions of Africans, and have been stopped by successful research.

Maize productivity has continued to increase for tens of millions smallholder farmers in East, West, and Southern Africa as a result of combined work by the International Maize and Wheat Institute (CIMMYT), African national maize programs, regional networks of African scientists, and support from various U.S. university scientists, many of whom have received USAID support. The USDA Agricultural Research Service, supported by USAID and some of the historically black U.S. land grant institutions, has worked with the South African research establishment to help demonstrate the short term payoffs that research can have in helping small black farmers increase their incomes through improved production of goats, flowers, and other commodities.

NGOs such as World Vision have worked closely with IARCs such as IITA and U.S. land grant CRSP scientists supported by USAID and various regional African commodity research networks to get the most productive seeds into war-torn countries such as Rwanda and Mozambique as soon as hostilities ceased, laying the groundwork for stability, rural resettlement of soldiers, and increasing incomes.

The Sasakawa-Global 2000 program, which has the support of the Ethiopian government at the highest level, draws on the strengths of the research and extension system, and the considerable

investments made by African governments, USAID, USDA, and the U.S. land grant system over the years in training a broad pool of very capable Ethiopian agricultural experts. As result of these investments, the development of new and more productive varieties has been able to double and sometimes triple foodcrop yields for over a millionfarmers in Ethiopia.

Without the already considerable success of research and extension in Africa, the problems of poverty, hunger, malnutrition, and childhood death rates would be much worse than they currently are.

B. U.S. Institutions—Benefiting from Sustained USDA and USAID Commitment— Have Assisted in Making African Research and Extension More Productive and Effective

A number of positive trends have created very solid capacity for African agricultural research and extension to perform. Specificallythese trends have to do with human resources, institutional capacity, and integration of African scientists in the global agricultural technology system, and creation of a more client- and user-oriented agricultural sector in Africa.

In barely more than a generation, the three decades of the post-independence period for most African countries, the number of African agricultural research scientists has increased fourfold. Many of these scientists were trained in U.S. land grant institutions. USDA support to maintain the excellence of the land grant system, frequent USDA management of the training programs with these universities, and USAID candidate selection and financing of scholarships have together given those scientists the best the world has to offer in agricultural scientific education.

Many of these scientists continue to maintain strong research relationships with senior U.S. and international scientists, partly through the USAIDfunded IARCs and CRSPs. The USAID-funded CRSPs, based in the U.S. land grant system, could not have had the success they have had without the broader institutional and research support provided by USDA for sustained university research quality and institutional support. As described in Annexes C and D, and in the recent USAID Title XII report to the Congress, the CRSPs involve 50 U.S. universities from 34 states in 22 African countries, and work on most major food commodities in Africa; the CRSPs have involved over 7000 U.S. and developing country scientists, many from Africa, in joint research. The IARCs that are involved in Africa have over the past decade increased their emphasis on Africa compared to the rest of the world and have strong relationships with scientists in almost every African research system, through a variety of mechanisms.

One element that has facilitated the work of this new generation of African scientists has been the major expansion of physical facilities and research institution building by the United States, the World Bank, and many other donors from the late 1970s to the late 1980s. The resulting expanded research institutions and facilities provided a potential strong base for African scientists to draw from the global research system, and coordinate among themselves. There have been many pockets of innovation and success stories coming out of these investments. Unfortunately, from the late 1980s to the early 1990s, both donor and African government support to agricultural research and

extension was not sufficient to ensure that the resources created in the 1980s, expanded scientific capability, institutions, and physical facilities, maximized the impact they could have had.

C. Major Problems Within and Beyond Agricultural Research Have Led to Serious Inability of African Agricultural Research and Extension to Cut Hunger in Half in Africa

Despite the promising expansion of agricultural research and extension systems in the 1980s, a host of problems now confront these systems. Some of these problems go well beyond the control of the managers and leaders of African research and extension. These include sector wide problems in agriculture related to policies, infrastructure, and civil stability. Stated development policies and urban and industrial bias have combined to disadvantage rural people, smallholder farmers, and agribusinesses that could have been providing services to farmers. One direct result of these overall policies and approaches is the inadequacy of rural infrastructure. Irrigation, rural road, rail, and telecomm infrastructure serving rural areas directly or indirectly are so poor as to make Africa's marketing costs the highest in the world by far. The result is very high costs of seeds, fertilizers, and other inputs in rural areas, and correspondingly low farmgate prices for everything farmers produce. Finally, the inability of some African governments to maintain peace and stability has introduced serious disruptions into rural areas. The overall effect of these problems is that the incentives and ability of farmers to adopt more productive farming techniques is far less than they would otherwise be.

Specific problems within agricultural research and extension are equally serious. These problems, as identified by African partners representing African research and extension systems at the February 24 Partner Consultation include:

- ? Bureaucratic and state-led approaches. Such approaches are inefficient, crowd out private sector, farmer, and NGO initiative, provide no performance incentives, and often lead to misdirected research. In addition, they seldom meet the needs of female farmers or poor farmers;
- ? Supply-driven priorities. With state-led systems, there is no client or customer helping to identify the highest priorities for research. Research output and technologies that are developed have tended to be those identified solely by the research establishment as useful, rather than identified by the farmers who best know the risky and specific situations and problems they face;
- ? Lack of real, equal partnerships. When farmer groups or businesses have been consulted by African research systems, there has sometimes been a proforma rather than genuine consultation, without the research and extension system changing priorities as a result of real dialogue. Conversely, often international scientific groups, from IARCs and advanced research institutes, arrive at African research institutes with their own agendas and priorities set, rather than engage African scientists and users in a genuine dialogue and partnership;
- ? Poor planning and incentives to perform. State-managed, supply-led bureaucratic research and extension system have often failed to undertake real priority setting, or put in place incentives for scientists and extension agents to perform by meeting the real needs of farmers;

- ? Funding crisis and erosion of capacity. Donor support for African agricultural research and extension has almost been cut in half since the mid 1980s. At the same time, African governments with a handful of exceptions have been unwilling to provide ongoing operating budgets commensurate with expanded staff and facilities. The result is a fourfold increase in scientists, but a very high reduction in the amount of actual research funding available for scientists to do their work. The percentage of agriculture GDP going to agricultural research in Africa has fallen precipitously since the mid 1980s, while the rate of growth in expenditures for research—6.1 percent per year in the 1960s and 2.6 percent in the 1970s—had fallen to a tenth of one percent (0.1 percent) by the early 1990s. This reflects a failure of donors to follow through on their investments in agricultural research and extension. For example, the number of African scientists the U.S. government has trained in agriculture at U.S. land grant universities fell from roughly 700 in 1992 to approximately 40 in 1997. Even more importantly, it reflects a failure of African governments, in particular the political leadership and the Finance Ministries and Treasury, to recognize that failure to increase their own investments in agricultural research and extension will lead to hunger, malnutrition, and increased childhood death rates among their people;
- ? Weakened technology transfer and extension systems. Public extension systems in most African countries have no incentives to perform, and have now almost no resources, and in some cases are being dismantled. In certain areas, private sector extension and service/input delivery is working well, but by and large is weak and restricted; and
- ? Isolated project and NGO enclaves. In response to all of the problems above, donors have often funded enclaves of success and impact, sometimes through freestanding projects involving government research and extension staff, but with no long-term viability, sometimes through NGOs. These enclaves serve a critical purpose in showing that African researchers and extensionists can make a difference in the lives of poor rural people, but they succeed only by dint of major resources, and they are almost never replicable to national level nor are they sustainable at the levels that African governments could afford to support financially.

D. African Research and Extension Groups, with Support from Donor Countries Including the U.S. Government (USAID and USDA) are Helping to Solve these Problems.

A wide range of private and public partners, in Africa, in the United States, among other donors, and in other international groups, are working to address many of the above problems. These diverse partners include governments, research and extension organizations, NGOs, universities, farmer group federations, and agribusiness associations. In addition, solutions to many of the above problems lie outside of Ministries of Agriculture and outside of the realm of agricultural technology research and extension. A concerted effort to coordinate among agricultural technology partners, as discussed in the final section of this report, could nevertheless have an impact on these broader constraints. In this section of the report, we discuss progress in addressing some of those problems, which are within the capacity of the various partners involved in agricultural research and extension to address. We also address some of the required actions beyond the scope of agricultural research and extension to address.

The Special Program for African Agricultural Research, the Forum for Agricultural Research in Africa, and Joint USDA-USAID Support for these Coordination Mechanisms

By the late 1980s and early 1990s, agricultural research leaders, agribusinesses, farmer representatives, donors and others began to realize that there were some similarities to agricultural research problems across most African countries, as enumerated in the previous section. Their common diagnoses for these problems, and recommendations for solving them, became the focal point for an Africa wide research coordination mechanism called the Special Program for African Agricultural Research. While a number of local initiatives were starting to address some of these problems, there was a general sense that an Africa-wide dialogue needed to take place to encourage broad scale solutions to common problems in order for entire research systems to perform better in addressing the needs of the rural poor.

The Special Program for African Agricultural Research (SPAAR) started in the early 1980s, serving as a clearinghouse and coordination mechanism for those donors supporting African agricultural research. By the early 1990s, however, the problems outlined above were beginning to become evident and SPAAR began to identify solutions to those problems and try to interest African research institutions in participating in those solutions. Since SPAAR was at that time a “donor club” this approach had only limited results. Beginning in 1993(?) SPAAR became an open coordinating group in which all African agricultural research institutes together with donors supporting research could participate. Subsequently representatives of farmer groups, rural women’s groups, international agricultural research centers, advanced research institutes (especially U.S. land grant universities represented through the CRSPs), agribusiness groups, NGOs and other stakeholders in African agricultural research and extension became part of the “SPAAR coalition.”

For much of the 1990s, through annual coordination meetings, African-based consultancies, and special projects, SPAAR has focused on the adoption of an agricultural research reform agenda to address the serious problems outlined in the previous section. Specifically, in pushing this reform agenda, SPAAR has facilitated productive coordination among donors, among national and international research groups, among national researchers and client groups (farmers, agribusinesses, NGOs). SPAAR has also rapidly provided information and models of success that have worked in one country so they can be replicated in other countries. While all major donors to agricultural research have participated, the World Bank, United States, and E.U. have been among the most prominent and active donors, providing consistent annual support in financing and in kind.

USAID and USDA have provided this support jointly, with USAID funding and staff support, complemented by USDA technical expertise. (Annex G describes specific USAID and USDA support to this broad African regional coordination and reform agenda.) SPAAR has permitted broad experimentation with approaches better able to meet the needs of small-scale farmers and women, and more rapid acceptance and expansion of such approaches across entire research systems in a number of countries.

The Reform Agenda: Frameworks for Action to Improve Donor and African Agricultural Research and Extension Performance

The SPAAR reform agenda, which the members of the SPAAR coalition, including most particularly African agricultural research institutions, have adopted is based on a vision for African agricultural research drafted by a SPAAR/FARA working group with strong USDA participation. That vision sees agricultural technology contributing to rural prosperity and reduction of hunger by creating research and extension systems that are demand-driven, competitive, and pluralistic; by empowering stakeholders in the system; by identifying and accessing sustainable financing sources; and by using research and its results to inform and impact on the policies affecting the agricultural sector. It sees all these things transforming agricultural research into an engine of African development. The SPAAR reform agenda has six elements, referred to as “Frameworks for Action (FFA).” (See Annex I). These FFAs were presented to the February 24 Partner Consultation meeting by a SPAAR representative; there was a remarkable congruence between the Frameworks for Action and many of the recommendations coming out of the February 24 Partner Consultation.

The Frameworks for Action are elaborated below:

- ? Rigorous and participatory priority setting;
- ? Consolidated and sustainable funding;
- ? Management capacity building and accountability;
- ? Building country coalition and support groups;
- ? Linkages between research, extension, markets, and farmers including women; and
- ? Regionalization of research and international collaboration.

Each of these elements is critically important, and USAID and USDA have assisted SPAAR and its member African institutions in the formulation and implementation of each. Most of the elements move research and extension systems in the direction of becoming more pluralistic, with a greater diversity of actors and roles, and with increasing public-private partnership and cooperation. Below we discuss each of the Frameworks for Action, its correspondence with conclusions coming out of the February 24 Partner Consultation, and the roles of USAID, USDA, and their partners in addressing each area to date.

Rigorous and Participatory Priority Setting

As African research institutes expanded in the 1980s, they took on many tasks without a disciplined focus on the key research tasks where a critical mass of effort could lead to important breakthroughs with an impact on large number of farmers. Priority setting is an essential element in the management of scarce research resources in order to have an impact. In the early 1990s, before resource constraints led to the cessation of bilateral USAID institutional support for agricultural research, U.S. land grant universities, with USAID funding, helped several African institutes (e.g. in Mali and Kenya) develop key research priorities with their own scientists and research users.

More recently, USAID, USDA, and land grant university staff have worked together with other donors to assist a number of regional East and West African agricultural research networks complete a rigorous priority setting exercise with business and farmer users of their research products. In addition, since the early 1990s, USAID, working with USDA technical experts, the U.S. land grant university system, and African research and extension groups, has conducted a series

of comprehensive studies of where research has had high impact. These studies have led to the training of a large number of African research economists who can use their impact study skills in more rigorous priority setting for their national research institutes.

Consolidated and Sustainable Funding Sources

A key recommendation of the February 24 Partner Consultation was to facilitate dialogue with African governments on the need for sustained financial support for agricultural research and extension. USAID and USDA staff, with USAID funding, have worked together with SPAAR in the implementation of a Sustainable Financing Initiative (SFI). This initiative has helped a number of national and regional agricultural research institutes begin to identify who their real clients are and which ones (including agribusinesses, farmer groups, and NGOs) might be able to access resources to provide sustainable support for the research results they get. It has already helped facilitate U.S. agribusiness support to one national research institute. More broadly, it has had a major impact in several African research agencies in helping them become more client oriented and demand driven, and in beginning to create a country level constituency and support group involving among others farmers groups, African agribusinesses, and NGOs. For example, in Tanzania as a result of this initiative public sector revenue for agricultural research is now fully focused on the food crops of the poor, while cash crop research—which often drained revenues from food crop research—is funded by the cash crop commodity associations. This strengthens both food crop research as well as making cash crop research more responsive to the needs of the farmers using the technologies.

The SPAAR SFI initiative also has laid the basis for two far-reaching developments. The first is early discussions in West and East Africa on the possibility of regional research funds that would make competitive grants awarded on the basis of performance and results in meeting the needs of small farmers and other clearly defined groups of users. The second is a dialogue, which began in May 1998 between SPAAR, African research and extension groups, and the West African Ministers of Finance, Agriculture, and Plan on the need for sustainable African government support for agricultural research and extension. USAID and USDA staff and USAID funding provided strong support for that dialogue.

In addition, dialogue around this SPAAR FFA has assisted African research institutes to begin to put in place consolidated funding mechanisms to avoid the dispersal of research resources into many separate funding “pots” with no overall integration in either accountability, planning, or reporting.

Management Capacity Building and Accountability

Coordination among partners cannot work well if there is not an equal partnership. This was one conclusion of the February 24 Partner Consultation. A second related conclusion is that, in contrast to U.S. support to agricultural research and extension in Asia and Latin America, the United States has left the task of capacity building unfinished in Africa, where many of the key institutions remain weak and cannot easily serve as equal partners with U.S. or international institutions. USAID, USDA, and the land grant universities, and African governments, did not invest sufficient time in the basic building blocks of training and institutional development required for many African research and extension institutions to perform effectively. Indeed with the absolute reduction in donor

funding, and declining research funding per scientist by African governments, there has been a major erosion of capacity in both research and extension in Africa.

The SPAAR Framework for Action addresses this issue by calling for renewed support for research management capacity building and better accountability. Even with the withdrawal of bilateral support to African research and extension in the 1990s, USAID, with USDA technical expertise, has helped build research capacity through the AfricaLINK project (linking researchers across many countries into electronic communications networks) and the Africa leadership training project (training researchers in research management and leadership skills). In addition, the SPAAR coalition, as recommended in the 1998 External Program Management Review, is beginning to address the issue of better integration of African agricultural universities into agricultural research and extension. The fact remains, however, that with bilateral donor withdrawal from the substantial support they provided national research and extension in the 1980s, the problem of management capacity in national institutes remains an unfinished agenda.

Building Country Coalition and Support Groups

Probably the most important set of ideas in the February 24 Partner Consultation concerned the requirements for successful coordination (discussed more fully in Section IV below). Successful coordination requires partnership, and partnership requires dialogue among equal participants in a common effort. SPAAR has put a great deal of emphasis on ensuring that African research institutes no longer work in isolation, but in partnership with a broad range of groups, ranging from farmers' groups, to extension groups, to agribusiness and NGO representatives, to government finance officials outside of ministries of agriculture.

Without a partnership with these groups, agricultural research will not be able to identify the highest priority problems faced by farmers, nor will it be able to mobilize sustained support and financing to address these problems. SPAAR has led the way in bringing such groups into a broadened African SPAAR coalition, and modeling how an individual research institute at national level can do this. As a result, in a growing number of countries, research priority setting is being done formally and informally with a broad coalition of supporters of agricultural research, including NGOs, farmer groups, and agribusiness representatives.

Linkages between Research, Extension, Markets, and Farmers, Including Women

The February 24 Partner Consultation recommended that any renewed U.S. effort in African agricultural research and extension must entail demand-driven research focused on the needs of rural households, including the considerable technical needs of women as farmers and in their other roles. It also recommended that research focus on the economic needs of smallholder farmers, not limiting efforts to improve subsistence production, but also to identify and improve cash-earning opportunities for poor rural people. The Partner Consultation identified various specific means of doing this, including research orientation towards market conditions, and using farmer groups and producer marketing organizations and cooperatives as a way to articulate farmer and market needs to the research system. All of these recommendations are fully consistent with the SPAAR

framework for action regarding linking agricultural research with extension, markets, and the needs of female and male farmers.

Despite withdrawal of USAID funding for overall African institution-building support by U.S. land grant universities, USAID bilateral agricultural programs continue to work with agricultural research in Uganda, Mali, Kenya, Ghana, and other countries by creating capacity of research clients (especially farmer groups, marketing cooperatives, and small African agribusinesses) to articulate research needs and market conditions to the research system. In addition, USAID financing and staff, with USDA technical assistance, has helped in the creation of regional agribusiness associations in southern Africa, which will be able to serve a similar function.

SPAAR itself, by assisting member research institutes in how to bring farmers and businesses into the priority setting process, has played a very effective role, as well in promoting linkages. SPAAR's gender initiative in particular will help African research and extension organizations better take account of gender in setting priorities and carrying out programs.

Finally, the role of NGOs is critical in this. A handful of U.S. NGOs have strong technical capacity in agricultural research, and have been able to articulate farmer needs within national research institutes, regional research networks, international centers and CRSPs in order to access new technology quickly for small farmers, often in crisis situations such as in Rwanda, Liberia, and Mozambique as peace and stability were restored after protracted conflict.

Regionalization of Research and International Collaboration

This is the area most consistently emphasized in the *Africa: Seeds of Hope Act*. By calling for better coordination, the Act seeks to move USAID, USDA, and the partners they fund to ensure closer collaboration between them and the African research and extension groups that need their involvement. This is also the area where, despite decline of bilateral support for agricultural research, USAID, USDA, and their partners remain engaged in a significant leadership role in Africa.

Likewise, in terms of research coordination, and its impact, probably the most important function SPAAR has played is in regionalizing and internationalizing African research. For over a decade, USAID, USDA, the IARCs, and many CRSP scientists in the U.S. land grant system have supported a series of regional African networks coordinating research, and conducting joint research, on a variety of critical food security crops and research themes. These networks have helped create strong complementarities and eliminate duplication of effort among the 50 plus African national research institutes. They have also had a major impact on speeding adoption of technology by smallholder farmers across national boundaries. With renewal of U.S. support to these networks in 1997, USDA and USAID have worked closely with SPAAR to help ensure that the SPAAR FFA principles were internalized among the networks.

USDA technical staff, and USAID staff and financial support, have also been instrumental in helping SPAAR, together with the E.U. and the World Bank, create or sustain subregional organizations (SROs) for research coordination among the African networks, IARCs, and advanced research

institutes (including land grant universities represented often through the CRSPs). There is now one active SRO in each of the three subregions of sub-Saharan Africa, and an umbrella forum, the Forum for Agricultural Research in Africa (FARA), representing all three of them. In East Africa, the SROs are the Association for Strengthening Agricultural Research in East and Central Africa (ASARECA); in southern Africa, the Southern Africa Coordinating Council for Agricultural Research (SACCAR); and in West Africa, the Conférence des Responsables de la Recherche Agricole in Afrique de l'Ouest et du Centre (CORAF).

These SROs, with USAID financing and USAID and USDA technical support, are now taking an active role in priority setting and in coordination with CRSPs and IARCs, in their respective regions. The best examples of strong CRSP and IARC collaboration with the networks and SROs is probably the work of the Livestock and INTSORMIL CRSPs in 1997-98 in East Africa in engaging in joint priority setting with the East African SRO (ASARECA) and the respective commodity networks and IARCs. These in-depth joint partnerships between USAID-funded international centers and land grant university CRSP programs with ASARECA and the East African commodity networks really set a new standard for equal partnership and joint priority setting and research collaboration that is to be emulated.

In addition, USAID support to both IARCs and land grant universities has been provided in recent fiscal years in ways which required coordination at international level. For example a small part of USAID's IARC grants have recently been dedicated to joint IARC-land grant work. Similarly, under the Africa Food Security Initiative, in the USAID University-IARC linkage program, FY1998 grants were made on a competitive basis to those land grant universities with the best proposals for joint land grant-IARC work to address key constraints identified by the IARCs and by African research groups.

IV. Requirements for the Coordination Plan

A plan for better coordination among U.S.-supported American and international partners with African research and extension groups must be built on several elements. These include:

- ? Solid principles to guide productive coordination;
- ? Attention to a few key thematic approaches; and
- ? Awareness of African views of the particular strengths the United States offers.

A. Principles to guide coordination

The February 24 Partner Consultation devoted much of its discussion to a few key principles underlying a successful coordination effort. These are enumerated below:

- ? Recognize and build on the strengths that partners have;
- ? Joint priority-setting and agenda-setting must bring results beneficial to each partner;
- ? Plans and proposals must be validated in Africa;
- ? Coordination needs to be done in the long-term perspective required for successful agricultural research and extension in Africa; and

- ? Coordination needs to be built on a solid foundation of institution-building, training, and capacity building for African research and extension institutions.

Finally there were two “negative principles” coming out of the partner consultation on which there was broad consensus. The first of these was based on the recent experience of the International Agricultural Research Centers, who invested major time and resources in some coordination efforts that proved ineffective because the purpose of the coordination was unclear. Coordination needs to be based on clear and well-defined program needs and outcomes, rather than on a poorly defined “need to coordinate.” This principle was widely agreed on by participants in the February 24 Partner Consultation based on their extensive experience in a wide variety of partnerships in the United States, Africa and elsewhere. The second principle was also widely agreed on, that coordination without a strong institutional capacity among all the partners is ineffective. Without finishing the job of institution building, capacity building, training, and management improvement among African agricultural research and extension agencies, U.S. efforts in coordination will yield little fruit.

The Gaborone consultation supported the broad principles outlined above, and in addition called for research coordination to be led by Africans and specifically by those institutions, networks, and mechanisms that the range of African stakeholders in agricultural research and extension have identified as their key coordination mechanisms.

B. Key thematic approaches guiding coordination

Several recommendations came out of the February 24 Partner Consultation and the Gaborone meetings regarding specific thematic approaches around which coordination among U.S., international, and African research and extension should focus. The first area fully consistent with the letter and intent of the *Africa: Seeds of Hope Act*, is that coordination take account of, and address, the economic and income needs of smallscale female and male farmers and poor rural people. Second is the requirement that any coordination lead to farm or consumer improvements for which there is a demand, either from farmers or rural people or markets. Relying on farmers’ groups and producer cooperatives is one way to help ensure that coordination is actually targeted on research that what farmers and the market want and can use. Finally, there was a strong sense in the February 24 Partner Consultation that one, but not the only, key technical problem requiring resolution was one of Africa’s major environmental problems—the soil fertility problem—and that available and new approaches to help farmers address this problem had to be widely disseminated.

C. African Views of the Particular Strengths That the United States Offers

African partners at the February 24 Partnership Consultation identified several key U.S. strengths that African research and extension systems could draw on, and identified optimal ways to use them. They noted in particular the following:

- ? A tradition of demand-driven, problem solving agricultural research;
- ? Strong private-public partnerships;
- ? Performance based agricultural land grant universities;
- ? Strong and extensive African experience;

- ? Long-term perspectives and commitments to research, extension, and training; and
- ? High quality scientific training.

They suggested that these strengths might best be used to the following purposes:

- ? Support for innovative African institutions;
- ? Support restructuring, and reward performance, through competitive funding mechanisms, including for subregional research entities;
- ? Donor coordination;
- ? Supporting and strengthening longterm partnerships between African and U.S. institutions;
- ? Training scientists and rebuilding human resources in African research and extension systems; and
- ? Providing analysis and facilitating dialogue on policy reform.

V. Plan for Coordination in Agricultural Technology Development and Transfer Between U.S.-Supported Institutions and African Agricultural Research and Extension Groups

The February 24 Partner Consultation identified, and the Gaborone SPAAR and FARA meetings confirmed, that there are three significant areas where greater coordination can produce better results in African agricultural research and extension. The first area is in the area of actual coordination around technology development and transfer. Two other areas, however, are crucial for creating the conditions and opportunities to ensure the incentives that will allow farmers to adopt new technologies and the sustainability of agricultural research itself. Each of these sets of issues is discussed in turn below.

A. Coordination in Direct Research, Extension, Technology Development, and Transfer

As documented in Section II and in some of the annexes to this report, there is already considerable coordination between USDA and USAID on African agricultural research and extension, as well as among their US, international, and African partners. USDA technical expertise, USAID dollars and staff, and land grant university and IARC research advisors have taken a coordinated approach to a number of regional research and extension problems in the 1990s, in particular in the area of subregional and regional networking and collaboration. In addition, U.S. NGOs, land grant universities, and the international agricultural research centers have much more closely coordinated their activities and programs in recent years, with very solid impacts discussed in various earlier sections of this report. Finally, within the development assistance community, USAID, with the assistance of USDA technical experts, has expanded its role in donor coordination for African agricultural research and extension since the early 1990s through the SPAAR mechanism.

Within ongoing and existing efforts and resource levels, there are additional areas where carefully targeted coordination of research/extension efforts could yield additional results. Eight areas in particular were identified during the February 24 Partner Consultation and the Gaborone SPAAR

and FARA meetings. These include focusing small grants programs on critical problem areas identified by Africans; expanding electronic networking; support SPAAR's efforts to ensure adequate gender considerations in African research and extension; work in identifying best practices in extension and agricultural technology transfer; expanding staff exchanges among USDA, USAID, NGOs and International and African research and extension centers; working with a range of partners to achieve the environmental goals of the Africa Soil Fertility Initiative; participating as appropriate in the new African apex research coordination group to evolve from SPAAR and FARA under African leadership; facilitate a coordinated IARC and African response to the CGIAR External Review Panel's Africa recommendation; and continuing and expanding pathbreaking U.S. land grant work through the CRSPs to jointly identify priorities with African research networks. Each of these is discussed below.

Focus Small Grants Programs on Critical Problems Identified by Africans

It is likely that at existing resource levels most U.S. land grant university involvement in African research will continue to be through a number of competitively awarded small grants programs funded by USAID or the USDA. USAID, USDA, and our partner institutions could manage such grants programs in ways that ensure that the Africa portion of those grants are made to those proposals that best address priorities and research areas jointly identified by the U.S. land grant university, African partner institutions and regional networks, and the international center. Recent or ongoing grants programs that might be coordinated in this way include:

- ? The USAID University-IARC linkage program (lack of FY 1999 or FY 2000 funds for this program make it a candidate for FY 2001);
- ? The USAID supported university Association Liaison Office (ALO) small grants program; and
- ? USDA programs in support of international capacity building in the land grant universities, such as NASULGC grants and the recently authorized GASEPA role for USDA/CSREES.

Expanding Electronic Networking and Information Exchange

A number of U.S., international, and African partners are increasingly using electronic networking as a low cost way to improve coordination among researchers, as well as serving as an effective and cheap teaching and training tool. Programs such as USAID's AfricaLINK program (linking researchers into electronic networks) and the Leland Initiative's work with USAID and USDA (on African agribusiness connectivity) could be expanded within existing U.S. based programs, with no net increase in total resource levels. USAID and USDA could also facilitate or fund the modest costs of Cornell University's royalty free essential electronic library for certain African research institutes.

Expand Gender Considerations in SPAAR Support to Research and Extension

Current leadership of SPAAR has introduced gender as a policy issue into all considerations of agricultural research and agricultural technology transfer in Africa. The 1998 SPAAR work program included a broad analytical assessment of gender approaches in agricultural research in Africa. In

1999, gender considerations, and specifically a cataloguing and dissemination of best practices will become a significant area of concern, but currently is not fully funded by the coalition of SPAAR partners. USAID and USDA will keep gender on the agenda of SPAAR, ensure adequate funding, and assist in the major efforts of SPAAR to bring gender approaches to research into the mainstream of all African research programs and institutes.

Identify and Disseminate Best Practices in Extension and Agricultural Technology Transfer

Most public sector extension agencies in Africa are either moribund or ineffective. In their place, a wide diversity of NGOs, farmer associations, private firms, and agricultural research agencies are trying many different extension approaches with varying results. However, in contrast to the situation with SPAAR for agricultural research, there is no clearinghouse or consensus on best practices and direction in agricultural extension in Africa. Nor is there a shared vision for appropriate public and private roles in extension. It is recommended that USAID and USDA, together with their public and private U.S., international, NGO, and African partners, identify and disseminate “best practices” in agricultural extension, including how to scale up from small project enclaves. The Africa Bureau of USAID will initiate one activity to identify these best practices through a network on rural service and finance delivery (including agricultural extension services) which is starting in FY99. For maximum impact, any U.S. work in this area should be closely coordinated with SPAAR, FARA, and/or the three subregional research coordinating bodies in sub-Saharan Africa.

Expanding Staff Exchanges

Currently USAID finances significant staff exchanges by which USDA staff provide expert advice on agricultural research and extension to USAID and to various African partners. USDA’s Agricultural Research Center finances outposting of some of its scientists to international agricultural research centers. Such exchanges could expand in modest ways among the various USDA and USAID partners, e.g., by having USDA sit on CRSP boards, by inviting NGO, private sector, and other partners to participate in some role in USAID’s Office of Agriculture and Food Security and Office of Sustainable Development or in USDA/CSREES.

Support the African Soil Fertility Initiative

The environmental problem that is probably felt the most acutely among African farmers is the decline in soil fertility and productivity. With a somewhat vague mandate and mechanism, the Africa Soil Fertility Initiative was started in 1996 to address this problem, but has not as yet led to identifiable operational approaches and impacts. USAID and USDA will provide support to helping the Africa Soil Fertility Initiative become operational in ways that provide sustainable answers to the soil fertility problems African farmers face.

Participate as Appropriate in the New African-Led Apex Research Coordination Body

One of the most important decisions of the SPAAR and FARA meetings in Gaborone was to create a new African-led apex research coordination body that would evolve out of SPAAR and FARA. This body will not itself coordinate research projects but facilitate partnership, linkages, and the strengthening of African capacity to participate as a full scientific partner in agricultural research efforts in Africa. It will combine the best of SPAAR and FARA under African leadership, while providing a more conducive environment for the kind of long-term partnerships that IARCS and U.S. universities seek in Africa. USAID and USDA, together with IARCS and universities, will need to participate in or coordinate with this apex coordination mechanism as it evolves out of SPAAR and FARA.

Facilitate African and IARC Joint Consultation and Response to the CGIAR's External Review Panel Recommendation on Africa

At the Gaborone SPAAR and FARA meeting there was a clear consensus among African research leaders and the international centers that a new CGIAR initiative on Africa was inappropriate because the plethora of initiatives in Africa currently threatens to detract from the time needed for research to really produce results that improve people's lives. There was also consensus however, and an explicit invitation from the ranking IARC director present at the meetings, that African research groups, represented by CORAF, ASARECA, and SACCAR, needed to fully participate in IARC consultations in May 1999 regarding the actions the IARCs should take in response to this recommendation.

Continue and Expand Joint Research Priority Setting

Some commodity networks, some international centers, some of the CRSPs, and NGOs, farmer representatives, and African agribusiness have engaged in coordinated joint priority setting with private sector research clients (farmers and firms) over the past two years for some commodities in East and West Africa. Such collaborative research planning and priority setting should be emulated by other groups, and become standard practice among U.S. land grant universities and other advanced research institutes, international centers, African research groups, and others engaged in research planning among the other commodities and regions. U.S.-funded land grant university and IARC personnel can serve key functions in this process.

Taking account of existing levels of collaboration, and of current programs, we believe that the eight actions outlined above (plus the additional policy and commercial market areas in the section below) could practically be done with significant impact, and without compromising ongoing programs. Expanded coordination beyond this level, without additional efforts in institution building and capacity building, and without additional programs around which coordination could coalesce, would serve little purpose and in some cases squander time and scarce resources.

B. Market and Commercial Incentives for Farmers to Adopt New Technologies

Without a commercial and market orientation, and opportunities for farm families to put more cash in their pockets or food on the table, agricultural research and extension in Africa will have limited impact. African governments have made great strides in these areas, but there remains much to be

done, both within the purview of those governments as well as by the world trading system and by the international and U.S. private sector. The policy and commercial environment is a critical determinant of whether investments, coordination, and other activities in agricultural research and extension will have the desired outcome. The Sasakawa Global 2000 (SG2000) program has demonstrated the importance of conditions beyond the level of farm technology in affecting the benefits farmers receive from research and extension. A major success in several African countries, which have produced major increases in crop harvests, SG2000 has encountered food market or fertilizer delivery failures as the key constraint to further expansion in some areas. There are several policy and commercial areas in which USAID, USDA, and their partners could in some cases take an effective, coordinated approach to help facilitate positive changes in some policies.

African Governments Commitment to Agriculture

Commitment to agriculture entails two types of policies: those that enhance institutional pluralism and farmer and local, small agribusiness-oriented market economies; and those that lead to greater government investment in agriculture. On both these counts, most African governments have made a start but have not gone far enough.

Through coordinated action among SPAAR, U.S. land grant universities, NGOs, and others, various actor could raise with African government decisionmakers the need for “staying the course” on open agricultural markets, creating a conducive environment for private seed and fertilizer dealers to deliver the goods, and on investing more in their agricultural sectors. The most effective way through which USAID and USDA will raise these issues is through international and African policy for a such as the Global Coalition for Africa, the Special Program for Africa, the U.S.-U New Transatlantic Agenda, and other such fora.

USDA-USAID Coordination on Trade, Competitiveness, and Globalization Issues

A set of policies that will have a profound effect on all developing countries are the bundle of World Trade Organization-type developments, regulations, laws, treaties, and policies that affect agricultural imports and exports. USDA and USAID share the same longterm objectives, but each brings unique strengths to these policy discussions and should more carefully and jointly plan their activities and approaches. USDA’s strengths are a depth of analytical capability, knowledge of how such policies are to be implemented in the United States, and a clear, view of where U.S. producer and consumer interests lie in these discussions. USAID’s strengths have to do with its overseas presence, the trust it embodies, and the sense by Africans that USAID is an honest broker not trying to push the short term U.S. trade agenda. By joining our two strengths (whose differences essentially involve looking at policy from the perspective of the U.S. (USDA) or the African farmer and consumer (USAID), the U.S. government would have a more effective tool to further both our trade and our development interests in the short and long term. The specific trade related issues where better coordination could increase benefits, are just those issues where many African policymakers are unclear what they should do, such as biotechnology, food safety, agricultural trade and WTO, intellectual property rights, and nontariff barriers, and where they eagerly seek U.S. government policy and technical advice.

Educating U.S. Agribusiness Regarding Investment in Africa

Finally, the February 24 Partner Consultation noted that while some U.S. firms are interested in investing in Africa, most do not. The consultation suggested that USAID and USDA could work together with our other partners resident in Africa, to help educate the U.S. private sector regarding the general investment climate in Africa, which is far better than most people think. One example of how the various partners could jointly work to this end is the 1998 Ghana business investment consultation hosted by North Carolina A&T University, in which USAID, land grant university, U.S. and Ghanaian business personnel, and USDA staff facilitated an extremely useful session for a broad range of U.S. business. USDA and USAID could work together with their partners building on a range of recent experiences to better educate the U.S. agribusiness sector.

USAID and USDA Work with African Partners to Identify Commercial Agricultural Opportunities, in both Food Crops and Cash Crops, from which African Farmers Can Benefit

USAID, USDA, together with our partners in the U.S. private sector, NGO, and university communities have a wealth of experience in the United States and abroad on how to create new commercial opportunities for rural people. In Africa, many of these opportunities, as is well documented, relate to cash crop production and its complementarity with and support to (not competition with) food crop production. U.S. and African agribusiness, U.S. cooperative development organizations, and African farmers groups should work more closely together, in part with Africa Food Security Initiative funding, to identify and create these commercial opportunities to help African farmers.

C. Long-Term Commitment and Renewed U.S. Leadership for Capacity Building in African Research and Extension

Without a renewed effort on long-term capacity building for agricultural research and extension in Africa, additional coordination efforts beyond those mentioned above will not bear fruit. African agricultural technology systems in research and extension are eroding, at the same time that the pressures of globalization and competitiveness are leading countries around the world in every other region to enhance their own capacities in agricultural technology research and extension.

Long-term capacity building requires first and foremost the African government financial and policy commitments. Expanding African government funding for agricultural research is essential. As the February 24 Partner Consultation noted with some concern, funding trends by African governments for agricultural research have declined significantly. Without a substantially greater financial commitment by African governments, foreign donor support for research institutes cannot be sustainable. USAID, USDA, SPAAR and various members of the SPAAR coalition could build on the experience of the May 1998 Ministerial meeting (in which these issues were first raised with African ministers of finance) to discuss agricultural research impact and funding needs with the appropriate actors.

However, even with such commitments, agricultural research and extension in Africa require renewed bilateral commitment from external donors such as the United States in those areas where

the expertise does not reside in Africa, in particular in research management improvement, scientific training, and university research linkages that go beyond what is available in a few short-term competitive small grants programs or regional networking and coordination activities.

On the U.S. side, such developments can only take place with a serious commitment to restore the U.S. leadership role in African agricultural research and extension. While the United States retains such a role in terms of international coordination for regional initiatives such as SPAAR, we have lost it at the level that is most important—the basic level of bilateral country research and extension programs involving strong public and private sector cooperation. Declining resources for agriculture, combined with a focus on short-term results that USAID and the broader donor community have taken in response to declining resources, have not permitted the U.S. to maintain its past leadership role in bilateral agricultural research and extension in Africa.

The resources required for expansion, especially to mobilize U.S. leadership in addressing the African capacity problem, cannot be carved out of other areas or other parts of the current USAID budget or other areas of the U.S. international affairs budget (the 150 account). This expansion can only take place with an overall expansion in the 150 account.

The document could, but does not, develop a plan for the coordination that would be required—and it would be extensive—were this leadership role restored. Specific actions critical to capacity building requiring additional resources include the following:

Help U.S. Technical NGOs Build Local Extension Capacity

Several U.S. NGOs have become very strong and effective in agricultural extension in Africa. These NGOs have the knowledge, experience, and staff to share their successful experience in ways that could help create an enduring local capacity both in local NGOs and among government and business agencies engaged in agricultural extension. However, these U.S. NGOs have neither the mandate nor the resources to serve alone in this function. There may be ways in which some of the various U.S., international, and African partners in agricultural research (IARCs, universities, and private U.S. and African agribusiness firms) can coordinate with U.S. NGOs in helping to build sustainable local capacity—in government, NGO, coop, and business groups—in effective agricultural extension, building on the best practices recommendation above.

Reinstating the FY1998 AFSI Global University Linkages Program

Under AFSI, a new Global Program was created in FY1998 to enhance the food security synergies and impact of universities and international agricultural research centers working in Africa. This built on and expanded earlier Global Program initiatives to ensure that international agricultural research centers and U.S. universities cooperate more closely in solving critical food security problems. Unfortunately, reductions in the Global Program agriculture budget did not permit continuation of funding of the AFSI university linkages program into FY1999. A renewal of U.S. leadership and funding for capacity building in African research would permit reinstating this program and expanding its impact on African researchers and farmers.

Instituting and AFSI Research Fund to Encourage Bilateral USAID Support to Capacity Building and Research

USAID missions in Africa, even those few that provide some limited support for agricultural research, are not contributing to enhanced capacity for research institutes to meet the needs of small farmers. Nor are USAID missions, with current staffing constraints, equipped to do this even if the resources were available. An AFSI research fund could assist in creating modest but longterm capacity building activities in support of various African research institutes in individual African countries.

Reestablishing Links between U.S. Land Grant Institutions and African Research Institutes and Agricultural Universities

While the era of large, longterm U.S. university technical assistance teams in Africa has ended, there is a major need for a new relationship linking African universities and research institutes into the U.S. land grant system on a long-term basis. Such linkages continue on a small scale through a variety of programs, but with few exceptions they are not at the scale required to build institutional capacity in Africa to identify and address the needs of smallscale farmers.

VI. Annex 1: Summary of the February 24, 1999 Partner Consultation on African Agricultural Research and Extension, at the Offices of the National Association of State Universities and Land Grant Colleges (NASULGC)

A. Welcome by NASULGC, USAID, and USDA

Dr. Mortimer Neufville, Director of Federal Relations, Food, Environment, and International Affairs, the National Association of State Universities and Land Grant Colleges, (NASULGC) welcomed participants and underscored the importance of joint discussions on how better to coordinate efforts.

Emmy Simmons, Director of the USAID's Center for Economic Growth and Agricultural Development, welcomed participants and pointed out that as a learning organization USAID benefits greatly from listening to and working with our partners. She suggested that one challenge coming out of the meeting was how to also get USAID field Missions in Africa involved in this dialogue on better agricultural research and extension coordination.

Hiram Larew, Director of International Programs, USDA CSREES/SERD, spelled out USDA's intention to work collectively with partners to develop the plan that the legislation called for, and suggested that USDA's interest, because of its domestic mandate, was specifically focused on trade promotion with Africa. He stated that this mandate has led USDA to put a new emphasis on Africa as a potentially greater trading partner, and also on the strong relationship between U.S. trading interests and the need for African food security and economic development. These new USDA interests have materialized in the GASEPA (Globalizing Agricultural Science and Education Programs for America) program that facilitates the globalization of the U.S. land grant university system.

B. The Africa: Seeds of Hope Act (SoH)

David Beckman, President of Bread for the World (BfW), provided background on the SoH legislation, which was the result of a coalition of the U.S. agricultural community, the Africa constituency, and the hunger groups coming together to get Congress's attention and support. Six key ideas undergird the Act: (1) reducing hunger and increasing the incomes of poor people; (2) focusing on small-scale farmers, including women; (3) pairing productive technology with environmental sustainability; (4) listening to and building capacity of, African farmers and professionals in agriculture; (5) coordinating U.S. institutions to help respond to African agriculture and food challenges; and (6) finding more resources. He noted that the six month reporting requirement is just the first step and should provide an opportunity, through hearings both this year and next year, to talk about what is being accomplished and what further could be accomplished. He added that because African farmers are among the lowest priorities in the appropriations process for the 150 account, total DA for Africa needs to increase if we are going to be able to increase our help for African farmers. Finally, BfW has received a grant to monitor USAID's implementation of SoH in the field.

C. Economic Returns, Impact, and Trends for Agricultural Research in Africa

Phil Pardey of the International Food Policy Research Institute (IFPRI) reviewed trends and significant impact in agricultural research and extension efforts to date in Africa. Funding trends have been steadily downward, in terms of growth rate and per scientist spending, since the 1960s and 1970s. A fourfold increase in scientists doing research has not been matched by the research budgets required for them to be productive, and many African research systems rely increasingly on donor funds due to a lack of African government commitment to fund agricultural technology research. Bilateral donor funding has fallen to barely half of what it was in the late 1980s for African agricultural research. Despite these major problems, a broad range of rigorous studies of the economic payoff to ongoing and past agricultural research efforts in Africa demonstrates very high economic impact and the fact that—contrary to what one might expect—the level of that impact (a 52 percent return on the investment dollar) is just as high as returns to research in other parts of the world.

D. African Views, Strategies and Approaches, and the Role of Coordination

Moctar Toure, Executive Secretary of the Special Program for African Agricultural Research (a coalition of African agricultural research groups from every country in sub-Saharan Africa and of the donors supporting them), suggested four reasons for the failure of agriculture to achieve its promise in Africa: inappropriate policies, poor infrastructure, civil strife, and poor incentives to use new technologies. He cited mixed results of agricultural research activities due to bureaucratic and state led approaches, isolated project enclaves, supply driven projects, and poor planning and incentives. In spite of these, there have been some significant results to include a fourfold increase in the numbers of national scientists, improved physical facilities, better policies, growing exports, and renewed agricultural growth. These positive changes make it important to ensure better donor coordination as well as implementing recent African led principles of agricultural technology reform, which include research planning and priority setting, consolidated and sustainable funding, capacity building and management, coalition building, and advisory groups for research; research-extension-farmer links; and the regionalization of research.

These “frameworks for action” are now being implemented in many African countries, leading to strategic planning, networking across borders, emergence of subregional organizations, more equal partnerships, listening to clients of research, and some institutional and financial innovation. But problems still remain such as supply driven research, lack of real partnerships, funding crises, capacity erosion, and weak technology transfer systems. To overcome these problems and make agricultural research and extension have the maximum contribution to small scale farmer incomes and economic development, the goal is to make agriculture and agricultural research an engine of development by the following steps: effective demand driven, competitive, and pluralistic institutional changes in research and extension agencies; empowerment of stakeholders; creation of sustainable financing mechanisms; and informed African policy debates. U.S. support is critical to this goal, and U.S. skills, expertise, and capacity, especially in working with other donors, establishing long-term partnerships, rebuilding human capital and capacity, and supporting policy reforms, can make a major contribution.

E. Panel Discussion: Coordination Among Partners

Land Grant Universities/Collaborative Research Support Programs (CRSPs)

David Sammons, Associate Dean and Director of International Programs in Agriculture of Purdue University, talked about partnership principles that have guided U.S. universities working on agricultural research and extension in Africa. U.S. entities, including universities, have evolved in their partnership arrangements from doing things “to” or “for” African partners to now working “with” partners in a true partnership. He mentioned key attributes of successful partnership: shared responsibility, open communication, deep trust, mutual recognition of the strengths of each partner, and long-term commitment. He then provided several examples of the CRSP partnership in Africa. The Livestock CRSP engaged in a highly collaborative process in its new phase of developing assessment teams whose purpose was to engage Africa stakeholders and researchers in identifying priority research needs and developing joint research proposals. The research now being done in Africa under this CRSP is conducted with these partners in carrying out the joint proposals they developed with the CRSP.

A different partnership, developed by the International Sorghum and Millet (INTSORMIL) CRSP, identified sorghum varieties resistant to striga, a major pest reducing sorghum yields. Since a U.S. based university CRSP has no extension capacity, INTSORMIL entered into a partnership with the NGO World Vision to introduce the new sorghum varieties to African farmers, a very successful research-extension and university-NGO relationship.

Dr. Sammons also discussed the Bean-Cowpea CRSP’s significant investment in training African scientists at MS and PhD level, and then forging and maintaining strong collaborative scientific research links with them after they returned to their home research system in Africa. Finally, Dr. Sammons discussed the increasingly strong coordination that many of the U.S. land grant universities, through the CRSPs and other mechanisms, have created in the recent past.

International Agricultural Research Centers

Dr. Pedro Sanchez, Director General of the International Center for Research on Agroforestry spoke, by video from his Nairobi, Kenya office, in his capacity as the current chair of the Committee of International Agricultural Research Center Directors. He urged the group to seek workable coordination mechanisms, but emphasized that coordination itself was less important than focusing on the key agricultural problems that must be solved to help small-scale farmers. He urged the group to devote substantial attention on a key African food production problem, the decline in soil fertility. He noted that there are now available solutions to this problem, such as rock phosphate (widely available in Africa), and tree species that fix nitrogen in farmers’ fields, but that these techniques require attention and investment in order to be scaled up to a level that will have major impact. He also pointed out that beyond simple restoration of soil fertility, African farmers need crop production opportunities that will earn them cash, and that many of these opportunities involve commercial crops, cash crops, or new niche market crops. Emphasizing food crops alone, when farmers need more lucrative cash crop opportunities, will not reduce rural poverty fast enough. Finally, he urged

USAID Missions in Africa to join the Africa Bureau and the Global Bureau of USAID in participating in the Soil Fertility Initiative in which ICRAF plays a key coordination role.

Non-Government Organizations/Private Voluntary Organizations

Dr. James Goering, Director of International Programs, World Vision Relief and Development, Inc. (WVRD), discussed WVRD's experience in conducting on-farm trials to identify the best crop varieties for farmers in a number of transition countries. These trials have permitted WVRD to provide farmers with varieties that yield 50 to 200 percent more than farmers' traditional varieties. However, WVRD recognized that it needed a longer-term approach to varietal improvement, so that it began to coordinate with INTSORMIL on varieties resistant to striga and on other crop production problems. WVRD has also coordinated with a number of IARCs on technology development and transfer, and has negotiated five memoranda of understanding with some of the centers, specifically with ICRAF, IRRI, and IITA. WVRD has organized a number of networking workshops with these IARCs in order for the best technical knowledge to be made available to a broad range of extension agents and farmers. Two specific examples of this kind of high impact coordination have been ICRAF-WVRD- USAID/Zambia coordination on agroforestry in eastern Zambia, and University of Florida and WVRD coordination with the Cooperative League of the United States, IITA, and USAID/Zambia on gender impact on new agricultural technologies.

USDA and USAID

Patty Fulton of the USDA CSREES/SERD/IP talked about USDA's longstanding support for African training, education, and research in coordination with USAID. She specifically mentioned the Village Banking project in South Africa, supported by USAID, and gaining the attention of the U.S. secretary of agriculture and the South African minister of agriculture. She also mentioned joint USDA-USAID programs in which USDA expertise was helping youth leaders and agribusiness leaders gain access to the Internet and electronic communications skills in Zambia and Uganda.

David Atwood of USAID's Africa Bureau spoke about joint USAID (Africa Bureau and Global Bureau) and USDA investment in new coordination mechanisms for agricultural research in Africa over the past several years, in particular joint USAID-USDA technical assistance and financial support for the Africa-wide coordination mechanisms that have put African research leaders in close contact with IARCs, NGOs, farmers' and women's groups, and agribusiness. These mechanisms plus the Special Program for African Agricultural Research (SPAAR) and the Forum for Agricultural Research in Africa (FARA) have in turn helped create an assortment of subregional networks and organizations developing and managing a range of regional research projects in which African organizations, U.S. universities, and IARCs are working closely to solve the highest priority problems identified by African stakeholders.

Comments and Discussion Regarding Current Coordination Mechanisms

After the above comments a number of questions and observations were made:

Dr. Winfrey Clark of Virginia State University asked for more precision about what exactly the group was trying to accomplish in the session.

David Beckman of BfW stated that the purpose of the meeting was to respond to the SoH legislative requirement that USAID in collaboration with USDA put together a plan to better coordinate the various agricultural research efforts funded by the U.S. government that may have relevance for Africa.

Cheryl Morden of the International Center for Research on Women observed that throughout the morning discussion there had been no mention of gender issues in food security in Africa nor of African and U.S. interest or efforts to address African food security from a gender perspective.

Moctar Toure of SPAAR and David Atwood of USAID responded that gender has become a high priority of SPAAR, taken on specifically by the chair of SPAAR, World Bank Vice President Jean Louis Sarbib, and that at the upcoming SPAAR meeting in March 1999, a report will be presented on how SPAAR and all its constituent African and international partners will better integrate gender concerns in their African agricultural research and extension activities.

Hiram Larew of USDA CSREES suggested that an important element in successful research and extension is the African university and that the coordination plan and broader U.S. government efforts in African agriculture needed to devote more attention to making African universities key partners in any such effort.

Joshua Walton of Agricultural Cooperative Development International (ACDI) stated his concern that more attention needs to be paid on extension and technology transfer, on getting the improved technologies of research out to African farmers, and mentioned ACDI's experience in facilitating such technology transfer.

Viera Weill-Halle of the International Fund for Agricultural Development suggested that given African governments' major concerns about desertification and ratification of the Desertification Convention, she would like to see more research devoted to technical responses to the desertification problem.

Dr. Tim Williams of the University of Georgia and the Peanut CRSP urged participants to recognize the very strong links between research to increase smallscale farmer productivity and the resulting impact on reduced childhood malnutrition and death and increased child survival.

A representative from the U.S. Peace Corps stated that the Peace Corps has the capacity to assist in gender approaches and in technology transfer, and that they could usefully participate in various coordinated approaches to agricultural research and extension in Africa.

Wrap-Up from the Panel Discussion and Charge to the Small Groups

Dr. Ed Schuh, BIFAD chair, summarized the morning session and provided a charge to the smaller working groups. He stated that he was delighted to see the level of USDA-USAID collaboration that already existed as regards agricultural research and extension in the developing world including

Africa. He noted that when he was USDA deputy undersecretary for international affairs and commodity programs roughly two decades earlier, he had fought hard, but lost, many attempts to focus USDA on the needs of international agriculture. He was pleased to now witness such a high degree of commitment on the part of USDA to international agriculture, and to see the level of cooperation and coordination that currently exists between USDA and USAID in addressing African agricultural issues.

Dr. Schuh stated that the term “food security” can sometimes get us away from recognizing the absolutely essential role that agricultural modernization plays in providing rural families with both food, income, and a way out of poverty. He expressed his concern that many foreign aid agencies had neglected the role that agriculture and the modernization of agriculture can play in reducing poverty. He highlighted several key elements of agriculture’s contribution to reducing poverty that he suggested the small groups focus on in their deliberations: the essential role played by high transport costs in Africa and the need for rural infrastructure to reduce those costs; the positive roles that international trade, health, and education play in modernizing agriculture and improving the lives of poor rural people; the importance of focusing on the household in identifying agricultural technology needs, rather than focusing on the farm or the firm per se; the need for greater social science research on African households in order to better identify technical solutions that all household members, male and female, can use; the importance of off-farm employment to the welfare of farm households; the need to pay more attention not just to research but to extension and technology transfer; and the need to put institutional development front and center if we expect to have an impact from greater coordination among ourselves and with African agricultural research and extension institutions.

Small Group Break-Out Discussions and Report Out

Two break-out groups had more in-depth discussions of the topics discussed in the morning. Notes of their detailed findings and discussions are reported in Appendix A and B. The first group focused on coordination mechanisms, the need to include a focus on the development of high-value export crops and trade, and the need to carefully define the issues in which USDA and USAID coordination would have the most impact. The second group focused on steps and principles that must undergird a successful coordination plan, agricultural research and extension links, how to improve coordination, and the kinds of coordination that will respond to the intent of the SoH Act. The key conclusions of these two groups were as follows:

- ? Greater effectiveness of agricultural research and extension is a long-term enterprise.
- ? Investments in African capacity are essential.
- ? Successful U.S. investments in this enterprise require restoring a U.S. leadership position in agricultural research and extension in Africa.
- ? Strong links exist between the success of African agriculture and positive outcomes in child survival; peace, stability, and conflict prevention; and international trade. The restoration of U.S. leadership to have an impact on African agriculture is very much in the broader humanitarian, trade, and foreign policy interests of the United States.
- ? Coordination without a clear purpose and desired outcome is counterproductive, as some of the partners in the meeting had learned from very recent experience.

- ? Since there are a range of effective and far reaching coordination mechanisms already in place in Africa (SPAAR, ASARECA, subregional research and technology transfer networks) and between U.S. universities, IARCs, and African researchers, it is crucial to build on existing mechanisms rather than to start all over again or ignore what is already working.
- ? U.S. or international research on African agricultural problems should be planned in consultation with African partners and undertaken according to priorities that have been identified by African partners representing the African research and extension community in Africa.

F. Vision for the Future

U.S. Land Grant Universities

Dr. Winfrey Clark of Virginia State University stated that the U.S. land grant university model of research, extension, and teaching remains a valid model in the United States and for Africa. He stated that it is important when thinking about effective coordination to avoid getting bogged down in discussions of the coordination process. He noted that coordination requires mutual interest, consultation, and respect. He stated that USDA and the land grant universities have mutual interests and respect, and engage in substantive consultation. By contrast, university experience with USAID programs in the past has been solely as “contractors” or implementers, not as true partners who are helping to determine the shape of the program. The USAID-university relationship in the past was one of serving USAID’s purposes rather than joint coordination on determining, shaping, and then implementing a common purpose and a common program. He left the group with a handout that guides Virginia State University’s and many of the land grant universities approaches to successful coordination and partnership.

International Agricultural Research Centers

Dr. Per Pinstруп-Andersen, Director General of IFPRI, stated that there has been extensive and successful IARC and U.S. university collaboration when it has been driven by programmatic needs, but that when collaboration had no clear purpose it has been a net drain on all participants’ ability to have an on the ground impact on farmers’ lives in Africa and elsewhere. He stated that the broad policy environment and commitment to agriculture of African governments are critical. He noted the very strong coordination that the Sasakawa-Global 2000 program has brought about among research, extension, and other groups and the demonstrated impact that such an approach can have when African governments have the right policies in place and are fully committed to agriculture. Food crop yields can triple when these conditions are in place, but without these African government commitments such changes are not sustainable.

Dr. Pinstруп-Andersen noted that it is important to examine donor commitments to funding agriculture and agricultural research and extension in Africa, but these donor commitments must not be undertaken as they were in the past, meaning in ways that made it easy for African governments to reduce their own financial and policy commitments to agriculture. One of the most important areas where the various U.S. and international actors need to better coordinate is in a productive

dialogue with African governments regarding their policy commitments to agriculture and their fiscal contributions to the costs of public sector agricultural research. In addition, African governments together with significant parts of the international community are in danger of creating a policy environment that is anti-biotechnology. Such policies will ensure that Africa, already threatened with marginalization from the benefits of increasing globalization and rapid technology change, will be unable to benefit from the most important developments of the coming years to increase agricultural productivity and incomes. The international community and African governments need to work together to create a policy climate that permits Africa to reap the benefits from biotechnology rather than regulating biotechnology away from Africa.

Non-Governmental Organizations/Private Voluntary Organizations

Dr. Pierre Antoine of Winrock International talked about the specific roles for technical NGOs. Technical NGOs are NGOs with significant technical expertise and capability. There are a number of technical NGOs working to improve African agriculture. Dr. Antoine mentioned specific areas where technical NGOs can be most useful in African research and extension. By identifying the farm family as a client they can ensure that gender specific technologies will be developed and adopted for high impact. By taking a systems approach, and focusing on income and economic opportunities, they can also help identify and transfer those technologies likely to be most attractive to the rural farm family. Technical NGOs can serve as a facilitator, not an implementor, and also as a trainer of trainers. Specifically, they can train and facilitate linkages among farmer groups, researchers, extension workers, and private firms. Finally, technical NGOs have been effective in helping to develop and model successful delivery systems for two-way flow of information and for technology transfer.

U.S. Agribusiness

Mark Condon of the American Seed Trade Association discussed U.S. agribusiness views of the African situation regarding private investment in more productive seed and seed delivery systems. He stated that both the African and the international private sector, including the United States, have ample financial and technical resources for the development and delivery of high quality, more productive seed in Africa. What is preventing these resources from being mobilized on a large scale up to now is the over-regulated policy environment for seed in many African countries. Globalization of agricultural technologies and competition for biotechnology solutions and products is happening. It is not something to take issue with but to respond to and manage. He noted that as long as African government officials create systemic barriers to earning a profit in seed distribution through a network of regulations and uncertain discretionary decision-making, African countries will be hampered by underdeveloped seed systems. Because the barriers are systemic, the solutions must be systemic and transnational. Until this happens, Africa will be left behind in the biotechnology revolution, which will have profound impact on African countries' ability to attract the private expertise, investment, and seed systems they need to feed their people, remain competitive and productive, and benefit from agricultural trade opportunities. The private sector seed industry is committed to partnerships. In a more conducive African policy and regulatory environment for seed, the private sector seed industry could help integrate Africa into the global system and global market for productive seeds.

Globalizing Agricultural Science and Education Programs for America (GASEPA)

David Sammons of Purdue University discussed the joint USDA-NASULGC-U.S. land grant university GASEPA initiative authorized by Congress in FY 1998. He stated that the old paradigm of U.S. land grant university involvement in development focused on working for USAID to undertake technical assistance, institution building, and long-term training for African and other developing countries. It was a paradigm that took benefits somewhere else (the developing country) but brought nothing back to the U.S. universities. The new paradigm is globalization: U.S. universities contribute to the global economy and to international food security, but in ways that return benefits and greater global knowledge to the U.S. university. The mission of GASEPA and the U.S. university partners in GASEPA is as follows: “An international dimension is incorporated into teaching, research, and extension programs so that 1) our graduates understand and appreciate the global environment in which agriculture functions, 2) our research and extension program have access to the best ideas and technologies regardless of where they are generated or developed, and 3) the above strengthen U.S. international competitiveness within a sustainable global agricultural system.” The five components of GASEPA include enhancing global competitiveness of U.S. agriculture through human resource development; developing and disseminating information about market, trade, and business opportunities; establishing mutually beneficial collaborative global partnerships; promoting trade through global economic development; and promoting global environmental quality and the stewardship of natural resources management.

African Partners

Dr. Gebrekidan Brhane of the IPM CRSP spoke for African partners. He emphasized that he was speaking on behalf of Africa but wanted to note that the CRSPs bring the best of the U.S. land grant university system to developing countries, including Africa. He noted that 34 states are represented among the CRSPs. He said that the most important point to note regarding coordination in agricultural research and extension in Africa is that the basic building blocks for successful coordination, African institutions, are not in place. The job of institution building in African agriculture is not completed. USAID invested very heavily in India and other regions of the world in institution building in agriculture; the results are now seen in India’s food surpluses and highly productive agriculture. In Africa there is no comparison. USAID has not completed the job of institution building for agriculture in Africa. The approach taken in India—the land grant university approach to ensure coordination among research, extension and teaching—is sound. However, in Africa more time and resources need to be invested in this endeavor.

Dr. Brhane talked about the experience of the Sasakawa-Global 2000 program. This program has been so successful in raising food production and yields in other countries and in his own country, Ethiopia, because it drew on a pool of qualified researchers and extensionists trained under the old Point Four program, the predecessor to USAID, and later trained by the Alamaya Agricultural University, a university started with USAID funding by a U.S. land grant university. Looking at his own personal history and experience related to U.S. support for training and institution building, it is obvious that a long-term perspective is needed. His effectiveness now in working to improve food crop productivity in Africa is the result of Point Four investments in training that were made 45

years ago. Capacity building cannot succeed without such a longterm view, and without U.S. commitment and leadership. Without completing the job of capacity building, investing in further coordination, beyond the productive coordination already taking place, will not have the desired impact.

Concluding Comments, Discussion, and Next Steps

The ensuing discussion led to an indepth consideration of African capacity building, resource implications, and the benefits of coordination if additional resources are not available. Dr. Winfrey Clark of Virginia State University reiterated his question at the start of the day regarding the purpose of the workshop. David Atwood of USAID and Hiram Larew of USDA stated that the purpose was to do as much as possible to find workable ways to implement the SoH legislative mandate to increase U.S. government impact by better coordination of existing resources. The purpose was not to seek new resources for agricultural research and extension in Africa because Congressional and Administration priorities and earmarks leave no discretionary room to increase agricultural funding beyond the already planned modest increases. Within current 150 Account budget levels for international development, additional increases for agriculture would cut sharply into two other areas that all recognize as crucial for Africa's progress in agriculture: 1) democracy and sound governance, and 2) broad economic growth and liberalization of the trading and commercial environment for private trade and investment.

It was noted that without restoring U.S. leadership for capacity building in African agricultural research and extension, it doesn't make sense to devote a lot more time on coordination, given the strong USDA-USAID-IARC-university-African coordination already taking place. Dr. Clark stated that spending a day discussing coordination, when there are no new resources to coalesce around, is unlikely to have much positive impact on African agriculture. Someone else commented that while discussing coordination without a realistic discussion of the additional efforts and resources required to make a difference in Africa may make everyone feel good and respond to legislative requirements, it is unrealistic, because in a resource constrained environment—such as the current environment for African agriculture—a lack of resources inevitably leads institutions not to coordinate but to compete with each other. Dr. Sammons stated that it was important for the plan to enumerate the diversity of the array of kinds of partners that are already working closely together to have an impact on poor farmers and rural people in Africa.

One of the participants felt that at the very least the plan needed to identify areas of need for which new resources are required and suggested that the USAID-USDA plan explicitly call for greater attention to resource needs in African agriculture. John Lewis and David Atwood of USAID responded that when USAID has in the past talked publicly about the need for more resources in agriculture, it has appeared to our colleagues in the management and policy sections of USAID that asking for these additional resources implied requesting an earmark for agriculture, and that such earmarks will only reduce USAID's overall effectiveness. Among the non-U.S. government partners in the room, there was a strong consensus that without additional resources for the 150 Account—that is, without more resources for agriculture that would not cut into work in democracy and economic growth—USAID and USDA would have only a limited ability to help in the capacity building that is required if further coordination is to have a significant impact.

David Atwood, Hiram Larew, and John Lewis presented a sketch of an outline for better coordination in agricultural research and extension in Africa, which was then amended and added to in the ensuing discussion. The amended broad outline includes coordination actions to be taken both at technology and at policy levels and is presented below:

Technology-focused Coordination

- ? Work to identify best practices in agricultural extension and disseminate these widely;
- ? Continue/expand USAID-university CRSP collaborative priority setting in the context of new African regional and IARC priorities;
- ? Focus some small U.S. university grant programs (such as USAID's Global Bureau university-IARC grants, the University Association Liaison Office grants program funded by USAID, and /or the NASULGC and GASEPA grants programs) on short-term critical Africa problems (such as soil fertility) identified among African, U.S., and international partners;
- ? Undertake more staff exchanges between USDA, USAID, NGOs, and land grant universities;
- ? Encourage and remind U.S. NGOs of their need to develop local African NGO capacity;
- ? Expand work on information technology for coordination among all partners in African agricultural research and extension; and
- ? Continue existing donor coordination initiatives.

Policy-Focused Coordination

- ? U.S., African, and international partners need to coordinate a dialogue with African governments, especially ministers of finance and planning, regarding the need for African governments to recognize the crucial role of agriculture and agricultural technology and to budget adequate resources for this;
- ? USAID and USDA should coordinate more regarding shared policy interests in African agriculture related to biotechnology, food safety, agricultural trade, and WTO intellectual property rights and non-tariff barriers to agricultural trade; and
- ? USAID and USDA should coordinate with U.S., international, and African partners on better educating the U.S. private sector regarding the benefits of trade and investment in Africa.

The next step in preparing the plan is to prepare a draft based on this meeting and present it to the participants in the annual African agricultural research coordination meeting of the Special Program for African Agricultural Research and the Forum for Agricultural Research in Africa, to take place March 8-12, 1999, in Gaborone, Botswana, and at which USDA, USAID, U.S. universities, IARCs, NGOs, African farmers and women's groups, and a broad array of African research and extension groups will be present.

Appendix A: Minutes of Break-Out Group led by USDA/CSREES Hiram Larew

Coordination Mechanisms

One of the ways in which USAID and USDA coordinate is through a well-developed placement mechanism of USDA employees at USAID. It was suggested that we should look at the reverse exchange of USAID employees placed at USDA as well as other exchanges, i.e. with NGOs.

In furthering USAID/USDA coordination, we must be sure that we are not coordinating for the sake of coordination. The CGIAR learned the hard way, through heavy transaction costs, that programmatic needs must drive coordination.

There is already a wealth of U.S. university linkages with African countries. We should look at how to improve these existing linkages before creating new ones. We also need to look at the function of indigenous institutions, the role they play, and areas where they need to be strengthened.

We can't have a coordination/development plan without full participation of the intended audience. Key African sub-regional organizations have already gone through their own priority setting exercises, with USAID/USDA involvement. We need to see how our other partners, i.e. U.S. universities and CGIAR centers, can fit their priorities into those of these subregional organizations. Also, in order to make our efforts more effective, we need to coordinate and cooperate with other donors and prevent political patronage.

Need to Refocus Development Efforts on High Value Export Crops and Trade

Past development efforts have focused too much on subsistence development at the household level. Future development initiatives should be centered around economic opportunities, i.e. high value export crops with a market orientation, not just staple food crops. Research organizations also need to link with well-founded village level NGOs to promote these economic technologies. Individual CGIAR-center MOU relationships with NGOs, i.e. World Vision, were given as an example.

Need to Redefine the Issue that USAID and USDA are to Coordinate Around

USAID and USDA already have effective coordination mechanisms in place. While there is always room for improvement, efforts should also be focused on increasing partnerships with others in the U.S. government to make the kind of impact that needs to be made in Africa. For example, agricultural research and development means more than increased food security; it ensures peace and greater democracy, increases child survival, creates new emerging markets, and affects global climate change. We need to insure that policymakers within USAID and USDA and elsewhere within the U.S. government understand these connections and appropriate the needed resources. IFPRI noted that they have the empirical evidence to link agricultural development to peace, democracy, and emerging markets—they just need the right forum in which to present this. It was noted that we also need to heighten awareness of national governments of the benefits to be gained if they increase their commitment to agricultural research and development.

Appendix B: “Downstairs” Break-Out Group Notes

Overall Plan Comments

- ? Before a plan is implemented, it needs to be tested with implementers and those who benefit from it.
- ? Part of the plan should be how we test our ideas.
- ? The plan should include both content and process.
- ? Determine what NGOs, universities, IARCS, NARS, international institutions and private sector are doing in Africa.
- ? Determine where we are (things have been changing for example, shift from food security to food safety).
- ? Determine what is the intent of the phrase in the law regarding “Steps taken toward implementation and amount expended.”
- ? Determine how enabling the environment is before pursuing activities, for example, institutions, human resources, technology, transportation.
- ? Focus on household dimension as a component of plan.

Agricultural Research and Extension

- ? Address dissemination, distribution, and outreach up front. Build it into the plan.
- ? How much research is devoted to improving traditional crops (smallscale farmers)?
- ? Consider two aspects of extension: actual research and social.
- ? If USAID is to take on extension, it needs to determine what is doable.
- ? What are the extension systems in Africa?
- ? What are USAID’s comparable advantages and capacity regarding extension versus other donors.
- ? Consider gender and how can we improve capacity?

Ways to improve coordination

- ? Focus on how USAID and USDA can work more effectively together with partners. For example, the Food Security Summit can serve as a model of how highlevel attention can get something moving.
- ? University’s window into USDA is CSREES. New leadership brings an understanding of USAID that is positive.
- ? Communicate, coordinate, and collaborate! What’s been done? What needs to be done? Can we fill the gaps?
- ? Increase collaboration with other donors and development groups (World Bank, European Union, etc.).
- ? Work together in international partnerships (trust, recognize strengths/weaknesses, etc.). None of us can do it alone.
- ? Share information about what we’re doing on the ground.

Will Coordination Meet the Intent of the Law?

- ? Coordination will show us where gaps are and need for new programs.
- ? The United States needs to regain its leadership in agricultural research in sub-Saharan Africa.
- ? Bring major initiatives together to increase impact (for example, desertification and soil fertility).
- ? Is the goal to increase subsistence or to bring people into the market economy (raises different issues)?
- ? Assess enabling environment:
 - ? Understanding of the problem (related to literacy).
 - ? Ability to get around (road infrastructure).
 - ? Willingness of government to introduce enterprises (policies).
- ? Remember development is long-term, but we need intermediate benchmarks to show progress.

Appendix C: List Of Participants

USAID-USDA Partner Consultation on Agricultural Research and Technology Transfer Efforts in Africa

On the Agenda:

***Emmy Simmons**, Co-Chair
Deputy Assistant Administrator
G/EGAD/USAID - RRB-2.10-080
1300 Pennsylvania Avenue, N.W.
Washington, D.C. 20523-2110
Fax: 202-216-3593
Email: emsimmons@usaid.gov

***Hiram Larew**, Co-Chair
USDA/CREES
Director, International Programs,
Room 3912
1400 Independence Ave.
Washington, D.C. 20250
Fax: 202-690-2355
Email: hlarew@reeusda.gov

***Mort Neufville**
Director
Federal Relations, Food, Environmental
and International Affairs- NASULGC
1307 New York Avenue, N.W.
Washington, D.C. 20005
Fax: 202-478-6046
Email: mneufville@nasulgc.org

***David Beckmann**
Bread for the World
Suite 1000
1100 Wayne Avenue
Silver Spring, MD 20910
Fax: 301-608-2401
E:mail: beckman@bread.org

***Phil Pardey**
IFPRI
2033 K Street, N.W.
Washington, D.C. 20006

Fax: 202-467-4439
Email: p.pardey@cgiar.org

***Moctar Toure**
SPAAR
1818 H Street, N.W.
Room J3-155
Washington, D.C. 20433
Fax: 202-473-8231
Email: mtoure@worldbank.org

***David Sammons**
Professor of Agronomy
Associate Dean and Director
International Programs in Agriculture
1168 Agricultural Administration, 26
Purdue University
West Lafayette, IN 47907-1168
Fax: 765-494-9613
Email: DJS@agad.purdue.edu

Jim Goering
301 Bluestem Street
North Newton, Kansas 67117
Fax: 316-284-0786
Email: sgoering@juno.com

Dr. G. Edward Schuh
Orville & Jane Freeman Professor of
International Trade & Investment Policy
Hubert H. Humphrey Institute
of Public Affairs
300 Humphrey Center
301 19th Avenue South
Minneapolis, Minnesota 55455
Fax: (612) 624-9084
Email: geschuh@hhh.umn.edu

Winfrey Clarke

Virginia State University
Agricultural Research Station
P.O.Box 9061
Petersburg, VA 23806
Fax: 804) 524-5622
Email: rbland@vsu.edu

Dr. Per Pinstrup-Andersen

Director General
International Food Policy
Research Institute (IFPRI)
2033 K Street, N.W.
Washington, D.C. 200036
Fax: 202-467-4439
Email: p.pinstrupandersen@cgiar.org

Pierre Antoine

Winrock International
38 Winrock Drive
Morrilton, Arkansas 72110
Fax: 501)727-5417
Email: pantoine@winrock.org

Mark Condon

American Seed Trade Association
601 13th Street, N.W.
Suite 570 South
Washington, D.C. 20005
Fax: 202-638-3171
Email: mcondon@ix.netcom.com

David Hanson

Ohio State University
International Programs in Agriculture
Ohio Agricultural Research and
Development Center
1680 Madison Avenue
Wooster, Ohio 44691-6900
Fax: 614-292-1757
Email: hanson.4@osu.edu

Other Attendees:

Michael McGirr

U.S. Department of Agriculture
CSREES/SERD/International Programs
Room 3912, South Building
Washington, D.C. 20250-2203
Fax: 202-690-2355
Email: mmcgirr@reeusda.gov

Ebony Bostic

U.S. Department of Agriculture
CSREES/SERD/International Programs
Room 3912, South Building
Washington, D.C. 20250-2203
Fax: 202-690-2355
Email: ebostic@reeusda.gov

Sue Schram

CIESIN
1747 Pennsylvania Avenue
Suite 200
Washington, D.C. 20006
Fax: 202-775-6622
Email: sue.schram@ciesin.org

John Stovall

National Center for Food and Agricultural
Policy
1616 P Street, N.W.
Suite 107
Washington, D.C. 20036
Fax: 202-328-5133
Email: stovall@ncfap.org

Thomas W. Crawford, Jr.

Associate Program Director
INTSORMIL
113 Biochemistry Hall
University of Nebraska
Lincoln, NE 68583-0748
Fax: 401-472-7978
Email: tcrawfordjr1@unl.edu

Brhane Gebrekidan

Integrated Pest Management (IPM) CRSP
Office of International Research and
Development
1060 Litton Reaves Hall
Virginia Tech, Blacksburg, VA 24061-0334
Fax: 540-231-3519
Email: brhane@vt.edu

Dr. Jonathan (Tim) Williams

Director
Peanut CRSP, University of Georgia
Georgia Agricultural Experiment Station
Griffin, GA 30223-1797
Fax: 770-229-3337
Email: crspgrf@gaes.griffin.peachnet.edu

Tim Schilling

International Office of Agricultural Programs
Administration Building, Room 12
Texas A&M University
College Station, TX 77843-2477
Fax: 409-845-5663
Email: t-schilling@tamu.edu

Eloise Carter

Tuskegee University
Office of International Programs
219 Kresge Center
Tuskegee, Alabama 36088
Fax: 334-727-8457
Email: ecarter@tusk.edu

Ikbal Chowdhury

c/o Office of International Programs
336 Founders Hall
Lincoln University
Jefferson City, MO 65102-0029
Fax: 202-573681-5591
Email: chowdry@lincolnu.edu

Kathleen Cullinan

Program Manager for Government Relations
American Association of State Colleges
and Universities (AASCU)
1307 New York Avenue N.W., Suite 500
Washington, D.C. 20005
Fax: 202-296-5819
Email: cullinank@aascu.org

Harold Matteson
New Mexico State University
MSC 3567, P.O.Box 30001
Las Cruces, NM 88003-8001
Fax: 505-646-1517
Email: hmattes@msu.edu

Vera Weill-Halle
IFAD
1775 K Street, N.W.
Suite 410
Washington, D.C. 20006
Fax: 202-331-9366
Email: v.weillhalle@ifad.org

Dr. Charles A. Panton
Associate Dean for Research
North Carolina A&T State University
B-16 C.H. Moore Research Facility
Greenboro, NC 27411
Fax: 336-334-7674
Panton@ncat.edu

Gausso Traore
INSAH
B.P. 1530
Bamako, Mali
Fax: 223-23-02-37

Wilbur Thomas
INSAH
B.P. 1530
Bamako, Mali
Fax: 223-23-02-37
Madame Sow

INSAH
B.P. 1530
Bamako, Mali
Fax: 223-23-02-37

Tiffin D. Harris
Director - External Relations
CIMMYT
Lisboa 27
Apartado Postal 6-641
06600 Mexico, D.F. Mexico
Fax: (9-011-52-5)726-7536
tharris@immyt.mx

Bruce Wilkinson
World Vision
220 Eye Street, N.E.
Suite 270
Washington, D.C. 20002
Fax: 202-547-4834
Email: bwilkins@worldvision.org

Josh Walton
ACDI/VOCA
50 F Street, N.W. - Suite 1100
Washington, D.C. 20001
Fax: 202-626-8726
Email: jwalton@acdivoca.org

Frank Byrnes
Winrock
1611 North Kent Street
Suite 600
Arlington, VA 22209
Fax: 703-525-1744
Email: fbyrnes@winrock.org

BIFAD Food Security Advisory Committee:

Andrew N. Agle

Director of Operations

Global 2000

The Carter Center

1 Copenhill

Atlanta, Georgia 30307

Fax: (404) 874-5515

Email: aagle@emory.edu

Selina Ahmed

Professor of Nutrition

Dept. of Human Services and

Consumer Sciences

3100 Cleburne Avenue

Houston, Texas 77004

Fax: (713) 313-7228

Email: selina.ahmed@pdq.net

Margaret L. Bogle

Executive Director

USDA, ARS Delta NRI

10825 Financial Center Parkway

Suite 309

Little Rock, Arkansas 72211

Fax: (501) 954-9596

Email: mlbars@deltaach.uams.edu

Ralph Christy

Professor

Warren Hall

Department of Agricultural Resource
and Management Economics

Cornell University

Ithaca, New York 14853

Fax: (607) 255-9984

Email: rdc6@cornell.edu

Betsy Faga

President

North American Milers' Association

600 Maryland Avenue, S.W.

Suite 305-West

Washington, D.C. 20024

Fax: (202) 488-7416

Email: BetsyFaga@aol.com

Ellen Marshall

United Nations Foundation

1301 Connecticut Avenue, NW

Suite 700

Washington, DC 20036

Fax: (202) 887-9021

E-Mail: emarshall@unfoundation.org

P. Howard Massey, Jr.

Associate Dean, Emeritus

College of Agriculture

and Life Sciences

Virginia Polytechnic Institute

and State University

807 Gracelyn Court

Blacksburg, Virginia 24060

Fax: (540) 951-7219

Email: phm24@vt.edu

Cheryl Morden

Policy Communication Analyst

International Center for

Research on Women

1717 Massachusetts Avenue, N.E.

Suite 302

Washington, D.C. 20036

Fax: (202) 797-0020

Email: cmorden@icrw.org

Ertharin Cousin Moore

Vice-President

Jewel-Osco

1955 West North Avenue

Melrose Park, IL 60160

Fax: 708-338-9838

E-Mail: cousin-moore.e@amstr.com

Barbara R. Spangler

Director of Government Relations
American Farm Bureau Federation
600 Maryland Avenue SW
Washington, D.C. 20024
Fax: (202) 484-3604
E-Mail: barbaras@fb.com

Goro Uehara

Department of Agronomy
and Soil Science
University of Hawaii
1910 East-West Road, Room 101
Honolulu, Hawaii 96822
Fax: (808) 956-3421
Email: goro@hawaii.edu

Christine Vladimiroff, OSB

Mount St. Benedict Monastery
6101 East Lake Road
Erie, Pa. 16511-1599
Fax: 814-898-4004
Email: cvlad@erie.net

USAID:

?G/EGAD/AFS

Room 211-040 RRB
U.S. Agency for International Development
1300 Pennsylvania Avenue, N.W.
Washington, D.C. 20523
Fax: 202-216-3010

John V.D. Lewis

Email: jd.@usaid.gov

Tracy Atwood, Deputy Director

Email: tatwood@usaid.gov

Dawn Thomas

Email: dthomas@usaid.gov

Harvey Hortik, Division Chief, ST

Email: hhortik@usaid.gov

Harry Rea

Email: hrea@usaid.gov

John Swanson

Email: jswanson@usaid.gov

Terry Hardt

Email: thardt@usaid.gov

Rob Bertram

Email: rbertram.usaid.gov

?AFR/SD

Mailing Address:
Room 4.06-111 RRB
U.S. Agency for International Development
1300 Pennsylvania Avenue, N.W.
Washington, D.C. 20523-4600
Fax: 202-216-3373

David Atwood

Email: datwood@usaid.gov

Rudy Vigil

Email: fvigil@usaid.gov

Millie Morton

3122 Adrian Place
Falls Church, VA 22044
Email: mmorton@AFRSD.ORG

?PPC/CDIE

Room 6.07-092 RRB
U.S. Agency for International Development
1300 Pennsylvania Avenue, N.W.
Washington, D.C. 20523
Fax: 202-216-3122

Margaret Schultz

Email: mschultz@usaid.gov

VII. Annex 2 - Participants in the 1999 SPAAR-FARA Coordination Meeting in Gaborone, Botswana

Last Name	First Name	Organization	Address	Telephone	Fax	E-Mail
Adeyemi	Joshua	Premier Seeds Nigeria Ltd.	P.O. Box 1673, Zaria Nigeria	234-069-34804	33202	Faoresajo@skannet.com
Aklilu	Afework	African Development Bank	24-PB 31, Abidjan 24 Côte d'Ivoire	225-204473	205991	a.aklilu@afdb.org
Allen	Scott	USAID	P.O. Box 2427 Gaborone Botswana	267-324449	324404	sallen@usaid.gov
Annerose	Daniel	CIRAD	42 rue Scheffer, 75016 Paris France	33-1-53702009	53702133	Daniel.annerose@cirad.fr
Atwood	David A.	USAID	1300 Pennsylvania Avenue, NW Washington, D.C. 20523	202-7125768	2163373	Datwood@usaid.gov
Barwale	Badrinajayan	Maharashtra Hybrid Seeds Co. Ltd.	Resham Bhavan, 4 th Floor 78, Veer Nariman Rd, Mumbai 400 020 India	091-022- 2049497	2047871	Mahyco@gisbm01.vsnl.net.in
Beavogui	Sekou	IRAG	B.P. 1523 Conakry Guinea	224-411062	415720	Irag@mirenet.net.gn
Bezuneh	Taye	SAFGRAD	P.O. Box 1783 Ouagadougou Burkina-Faso	226-30-60-71	226-31-15-86	Oua.safgrad@ceratrin.bf
Bieler	Peter	SDC	Eigerstr 73, 3003 Bern Switzerland	41-31-322-3359	313241695	Peter.bieler@deza.admin.ch
Binswanger	Hans	World Bank	1818 H Street, N.W. Washington D.C., 20433 United States	202-477-1234		Hbinswanger@worldbank.org
Bitoga	Jean-Paul	ISABU	B.P. 795, Bujumbura Burundi	257-227602 257-223390	225798	Isabu@cbinf.com
Brader	Lukas	IITA	C/o Lambourn & Co, Carolyn House, Croydon, CR9 3EE, England (based in Nigeria) 26 Wingwall Road	234-2-2412626	2412221	l.brader@cgnet.org
Camara	Baba Gale	SNPRV				
Caron	Patrick	SACCAR (Rep. French Ministry For. Affairs)	Private Bag 00108 Gaborone	267-328806	328806	Pcaron@saccar.info.bw

Last Name	First Name	Organization	Address	Telephone	Fax	E-Mail
			Botswana			
Chadha	Madan L.	AVRDC Africa	AVRDC Africa Regional Program P.O. Box 10, Duluti Arusha Tanzania	255-57-8491	4270	AVRDC-arp@cybernet.co.tz
Chalinder	Paula M.	UK Dept. of International Dev.	DFID Field Office, British High Commission, Private Bag 0023, Gaborone Botswana	267-314766	353768	p.chalinder@dfid.gtnet.gov
Chaparro	Luis F.	Global Forum on Agricultural Research	NARS Secretariat C/o FAO Via delle Terme di Caracalla 00100 Roma, Italy	39-06- 57053352	57053898	Fernando.chaparro@fao.org
Chetsanga	Christopher	Scientific & Industrial Research & Development Centre	P.O. Box 6640 Harare Zimbabwe	263-4-860321	860351	Cchetsanga@utande.co.zw
Chimwaza	Gracian	Cornell University TEEAL Project	25 Msasa Drive Msasa Park Harare, Zimbabwe	263-11608663	4740981	Gracian@africamail.com
Corbett	Johannes	University of Orange Free State	Dept. of Agricultural Economics P.O. Box 339 Bloemfontein, 9300 South Africa	27-51-4012936	4480692	Jcorbett@landbou.uovs.ac.za
Craswell	Eric	IBSRAM	P.O. Box 9-109 Jatujak Bangkok 10900 Thailand	662-9412500	5611230	Craswell@ibsr.com
Cronje	Andries	University of Orange Free State	Dept. of Agricultural Economics P.O. Box 339 Bloemfontein, 9300 South Africa	27-51-401-3352	4480692	Lgjadp@landbou.uovs.ac.za
d'Almeida	Gisèle	SOPROCOT	15278 Dakar-FANN Senegal	221-8257871	8241375	
Darthenucq	Alain	EC/DGXII	200 rue de la Loi 1049 Brussels Belgium	32-2-295-36-98	2966252	Alain.darthenucq@dg12.cec.be

Last Name	First Name	Organization	Address	Telephone	Fax	E-Mail
Debrah	Siegfried	IFDC	B.P. 4483 Lome, Togo	228-217971	217817	Debrah@café.tg
Derevier	Alain G.	World Bank/GFAR Executive Secretariat	1818 H Street, N.W. Washington, D.C. 20433 United States	202-458-7914	5221142	Aderevier@worldbank.org
Dhlamini	Alfred	Farmer (private sector)				
Diouf	Saliou	CMA/WCA	Avenue Bourguiba B.P. 15799 Senegal	21-8254721	8254730	cmaoc@sonatel.senet.net
Fall	Abdou	West Africa Rural Foundation	Sicap Amitié III Villa 4318 Allées Seydou N. Tall CP Dakar-Fann Senegal			Warfafa@cyg.sn
Gakale	Lucas P.	SACCAR	Dept. of Agricultural Research Private Bag			
Gaudreau	Martha	IRRI	B.P. 4151 Antananarivo Madagascar	261-206223264	206223151	Irrimad@cgiar.org
Goburdhum	Saheed	Faculty of Agriculture	University of Mauritius Reduit, Mauritius	230-4541041	4655743	Saheedg@dove.uom.ac.mu
Grobbelaar	Johan	ARC	P.O. Box 8783 Pretoria 0001 South Africa	27-12-4279862	435814	Lnrjg@Inr1.agric.za
Grum	Mikkel	IPGRI	C/o ICRAF P.O. Box 30677 Nairobi Kenya	254-2-521514	521209	m.grum@cgiar.org
Gwarazimba	Vincent	Zimbabwe Seed Trade Association	P.O. Box A1906 Avondale Harare Zimbabwe	263-4-332017	332017	Zsta@zimsurf.co.zw
Heinrich	Geoffrey	ICRISAT	P.O. Box 776 Bulawayo Zimbabwe	263-83-8311	838253	g.heinrich@cgiar.org

Last Name	First Name	Organization	Address	Telephone	Fax	E-Mail
Helsen	Jan	AfDB	01 B.P. 1387 Abidjan 01, Cote d'Ivoire	225-204746	204902	j.helsen@afdb.org
Hill	Jeffrey	USAID	1325 G Street Suite 400 Washington, D.C. 20005	202-2190465	2190518	Jhill@af-sd.org
Houssou	Moise	CORAF/FARA	P.O. Box 884 Cotonou Benin	229-213265	303770	Inrab@cgiar.org
Idachaba	Francis	ISNAR	Laan van Nieuw Oost Indie 133, 2593 BM The Hague Netherlands	3170-3496209	3819677	f.idachaba@cgiar.org
Jewell	David	CIMMYT	P.O. Box MP 163, MountPleasant Harare, Zimbabwe	263-4-301807	301327	d.jewell-t@cgiar.org
Judge	Cynthia	Datex, Inc. (USAID-S.T.R.E.N.G.T.H)	7799 Leesburg Pike, Suite 1150 North Tower Falls Church, Va 22043 United States (based in Botswana)	267-351530	351561	Cynthia@datex.bw
Jumbe	Charles	Uniterisity of Malawi	Agricultural Department P.O. Box 219 Lilongwe Malawi	265-277433	277286	Charles@apru1.malawi.net
Kampen	Jacob	World Bank	1818 H Street, N.W. Washington, D.C. 20433 United States	202-477-1234		Jkampen@worldbank.org
Kangasniemi	Jaakko	SPAAR	World Bank 1818 H Street N.W. Washington, D.C. 20433 United States	202-477-1234	202-473-8231	Jkangasniemi@worldbank.org
Kanouté	Assétou	ADAF-Gallè	Rue Achkhabad Porte 1854 Missira Bamako B.P. 3267 Bamako Mali	223-21-0033	223-21-0033	Adaf-galle@datatech.org

Last Name	First Name	Organization	Address	Telephone	Fax	E-Mail
Kassam	Amir	West Africa Rice Dev. Agency	01 B.P. 2551 Bouakeoi, Cote d'Ivoire	225-634514	225-634714	a.kassam@cgiar.org
Ketema	Seifu	EARO	P.O. Box 2003 Addis Abeba Ethiopia	251-1-612572	611222	lar@telecom.net.et
Kiome	Romano M.	KARI	P.O. Box 57811 Nairobi Kenya	254-2-583301	583344	Kiome@arcc.or.ke
Kirkby	Roger	CIAT	P.O. Box 6247 Kampala Uganda	256-41-567670	567635	Ciat-africa@cgiar.org
Koch	Frans G.	Agricultural Research Council	Private Bag X79 Pretoria 0001 South Africa	27-12-3102540	3231157	F.Koch@igkw2.agric.za
Kowero	Godwin	CIFOR	CIFOR Regional Office C/o Institute of Environmental Studies University of Zimbabwe P.O. Box MP167 Harare, Zimbabwe	263-4-334834	334834	g.kowero@cgiar.org
Kumar	Satish	World Bank Resident Mission	1818 H Street, N.W. Washington, D.C. 20433 United States	202-458-1882	4770515	Skumar@worldbank.org
Kwesiga	Freddie	ICRAF	SAOC-ICRAF Regional Agroforestry P.O. Box 134 Zomba, Malawi	265-534212	534298	Fkwesiga@malawi.net
Kyomo	Martin	Independent Consultant	P.O. Box 3195 Chuo Kikuu Morogoro Tanzania	255-56-2380	4562	Dasp@sua.ac.tz
Lebbie	Sahr H.	ILRI	P.O. Box 30709 Nairobi Kenya	254-2-630743,x.3402	632013 631499	s.lebbie@cgiar.org
Levy	Jose Gabriel	Instituto nacional de investigacao e desenvolvimento agrario	P.O. Box 84-PRAIA Cap Verde Islands	238-711147	711155	Inida@mail.cvtelecom.cv

Last Name	First Name	Organization	Address	Telephone	Fax	E-Mail
Mahabile	Wameotsile	Dept. of Agricultural Research	A.P.R.U, Private Bag 0033 Gaborone, Botswana	267-328780	328965	
Makambo	Mossala L.	INERA	13 Avenue Rapa ILEO Commune de la Gombe B.P. 2037 Kinshasha Democratic Republic of Congo	243-34321	33549	Spiaf@ic.cd or Ungcd@ic.cd
Makoba	Balibi	Dept. of Agricultural Research	Botswana	267-328780	328965	
Maphayane	G.S.	Dept. of Agricultural Research	Botswana	267-328780	328965	Arb@info.bw
Matlon	Peter J.	UNDP	Room 1034 304 East 45 th Street New York, NY 10017 United States	212-906-6408	9066973	Peter.matlon@undp.org
Mazhani	L.M.	Dept. of Agricultural Research	Botswana	267-328780	328965	Arb@info.bw
Mbabu	Adiel	KARI	P.O. Box 57811 Nairobi Kenya	254-2583342	583342	Mbabu@arcc.or.ke
McCarthy	Dennis	USAID/REDSO/Kenya	P.O. Box 30261 Nairobi Kenya	254-2-751613	743204	Dmccarthy@usaid.gov
Mgonja	Mary	SADC/ICRISAT	P.O. Box 776 Bulawayo Zimbabwe	263-838311	838235	m.mgonja@cgiar.org
Mianze	Theodore	Inst. De recherche agricole	B.P. 122 Lakovanga Bangui République centrafricaine	236-616275	503315	
Minde	Isaac	ECAPAPA	Smpigi Road P.O. Box 765 Entebbe Uganda	256-41-320212	321126	Ecapapa@iml.com
Mkamanga	Godwin Y.	SPGRC	Private Bag CH6 Lusaka Zambia	260-1-290345	611031	Spgrc@zamnet.zm
Mkhize	Siphiwe	National Dept. of Agriculture	Private Bag X250	27-12-3196446	3251042	

Last Name	First Name	Organization	Address	Telephone	Fax	E-Mail
			Pretoria South Africa			
Molope	Mishack	National Dept. of Agriculture	Private Bag X250 Pretoria South Africa	27-12-3196446	3251042	SEC.CDRCQC@Agric.za
Molapong	K.F.	SACCAR	Private Bag 0033 Gaborone Botswana	267-328847	328806	Molapong@saccar@info.bw
Monageng	Kgopisamo	Dept. of Agricultural Research	Botswana	267-328780	328965	Dar@info.bw
Morton	Ray	USAID Regional Office				
Mosielele	Mr.	Dept. of Agricultural Research	Private Bag 0032 Gaborone Botswana	267-350517	303744	
Mpiri	D.	Dept. of Research and Development	Ministry of Agriculture P.O. Box 2066 Dar es Salaam Tanzania	255-51-865313	865312	Dmpiri@costech.gn.apc.org
Mrema	Geoffrey C.	ASARECA	Plot 5 Mpigi Road P.O. Box 765 Uganda	256-41-321389	321126	Asareca@imul.com
Muchena	S.	African Centre for Fertilizer Dev.	51283 Hatcliffe Est. Alpes Road P.O. Box A469 Avondale Harare, Zimbabwe	263-860421	860423	Muchena@internet.co.zw
Mukiibi	Joseph K.	NARO	P.O. Box 295 Entebbe Uganda	256-041-320512	321070	Mukiibi@imul.com
Mullenax	John	USAID/REDSO	P.O. Box 30261 Nairobi Kenya	254-2-751613	743204	Jmullenax@usaid.gov
Mullins	Dana	USAID/Gaborone	Plot 14818, Lebatlane Road P.O. Box 2427	267-324449	324404	Dmullins@usaid.gov

Last Name	First Name	Organization	Address	Telephone	Fax	E-Mail
			Gaborone, Botswana			
Muntemba	Shimwaayi	World Bank	1818 H Street, N.W. Washington, D.C. 20433 United States	202-458-7370		Smuntemba@worldbank.org
Mutua	Rosalind	Jomo Kenyatta University	P.O. Box 62000 Nairobi Kenya	254-0151-52711	52030	Jkurpe@nbnnet.co.ke
Mwandemere	Henry K.	FAO	Italy, Vialle delle Terme di caracalla, 00100, Rome		39-06-57055731	Henry.Mwandemere FAO.org
Mwangi	Wilfred	CIMMYT	P.O. Box 5689 Addis Abeba Ethiopia	251-1-615017	611892	w.mwangi@cgiar.org
Navarro	Luis	IDRC - Kenya	P.O. Box 62084 Nairobi Kenya	254-2-713160	711063	Lnavarro@idrc.or.ke
Ndikumana	Jean	ILRI	P.O. Box 30709 Nairobi Kenya	254-2-630743	632013 631499	j.ndikumana@cgiar.org
Niang	Thiendou	CTA	P.O. Box 380 6700 AJ Wageningen Netherlands	(31)-317-467140	460067	Niang@cta.nl
Njobe-Mbuli	Bongiwe	MOA	Private Bag X250 Pretoria South Africa	27-12-3196446	3251042	SEC.CDRQCQ@Agric.za
Noor	Mohammed	SPAAR	World Bank 1818 H Street, N.W. Washington, D.C. 20433 United States	202-473-6619	4738231	Mnoor@worldbank.org
Nwalozie	Marcel	CORAF	Avenue Bourguiba B.P. 8237 Dakar-Yoff Senegal	221-8259618	8255569	nwalozie@sonatel.senet.net
Nwanze	Kanayo F.	WARDA	01 B.P. 2551 Bouaké 01	225-634514	225-634714	k.nwanze@cgiar.org

Last Name	First Name	Organization	Address	Telephone	Fax	E-Mail
			Côte d'Ivoire			
Nyirenda	Margaret	SADC Secretariat	Private Bag 0095 Gaborone, Botswana	267-351863	372848	Nyirenda@sadc.in
Ogbourne	Colin P.	CAB International	Wallingford Oxon OX10 8DE United Kingdom	44-1491- 829219	833508	c.ogbourne@cabi.org
Olesen	Jorn	Danish Ministry of Foreign Affairs	2 Asiatisk Plads DK-1448 Copenhagen K Denmark	45-33920000	32540533	Jorole@um.dk
Palmier	Harry	SPAAR	World Bank 1818 H Street, N.W. Washington, D.C. 20433 United States	202-458-1528	473-8231	Hpalmier@worldbank.org
Pee	Peter	SPAAR	World Bank 1818 H Street, N.W. Washington, D.C. 20433 United States	202-473-9000	473-8231	Ppee@worldbank.org
Quinones	Marco A.	SG 2000	P.O. Box 127771 Addis Ababa Ethiopia	251-1-510584	510891	m.quinones@cnet.com
Rangi	Dennis	CABI Regional Office for Africa	633 Village Market Nairobi Kenya	254-2-521450	522150	d.rangi@cgiar.org
Rasolo	Francois	FOFIFA	B.P. 1690 101 Antananarivo Madagascar	261-20- 2240130	2240270	Fofifa@dts.mg
Ring	Ernest	European Commission	Plot 68 North Ring Road P.O. Box 1253 Gaborone Botswana	267-314455	313626	Eudelbwa@info.bw
Rusike	Joseph	University of Zimbabwe	Dept. of Agricultural Research P.O. Box MP167 Mount Pleasant	263-4-490795	303544	Jrusike@compcentre@uz.ac.zw

Last Name	First Name	Organization	Address	Telephone	Fax	E-Mail
			Harare, Zimbabwe			
Sarbib	Jean-Louis	World Bank	1818 H Street, N.W. Washington, D.C. 20433 United States	202-477-1234		Jsarbib@worldbank.org
Segonetso	Malefane	Forum on Sustainable Agriculture	Plot 545, Ext. 4 South Ring Road Gaborone Botswana	267-304091	307506	Fonsang@global.bw
Slot	Hans	Ministry of Foreign Affairs (Ogis)	Box 20061 2500 The Hague Netherlands	3170-3486034	3486436	Hans.slot@dco.minbuza.nl
Spencer	C.R.	African Development Bank	B.P. V 316 Abidjan 01 Côte d'Ivoire	225-204152	204699	c.spencer@afdb.org
Steiner	Roy	TEEAL	24 Cecil Rhoder Drive Newlands Harare, Zimbabwe	263-91220586		Roysteiner@africamail
Sundstel	Friek	SACCAR	Private Bag 00108 Gaborone Botswana	267-328769	328806	Sundstol@saccar.info.bw
Sykes	J. Trevor	Sr. Agriculturalist (Consultant)	2111 Altavista Drive Ottawa K1H 7L6 Ontario Canada	613-247-0205	247-0205	Jf7956@aol.com
Takavarasha	Tobias	MOA	Zimbabwe			
Tiemoko	Yo	Centre national de recherche agro.	01 BP 1740 Abidjan 01 Côte d'Ivoire	225-453116	225-453305	
Toledano	Joseph	World Bank- Resident Mission	C/o World Bank 1818 H Street N.W. Washington, D.C. 20433 United States			Jtoledano@worldbank.org
Toure	Moctar	SPAAR	World Bank 1818 H Street N.W.	202-473-9008	473-8231	

Last Name	First Name	Organization	Address	Telephone	Fax	E-Mail
			Washington, D.C. 20433 United States			
Traoré	Adama	CNRA-Mali	B.P. E 1911 Bamako Mali	223-227165	227165	Atraore@spider.toolnet.org
Traoré	Kassoum	CNRA Côte d'Ivoire	BP 1740 Abijan Côte d'Ivoire	(225) 454170	(225) 453305	
Uaiene	Rafael	Instituto Nacional de Investg. Agron.	C.P. 3658 Maputo Mozambique	258-1-460100 258-1- 460097/8/9	460074	Rafael@uaiene.uem.mz
Von der Osten	Alexander	CGIAR	World Bank 1818 H Street, N.W. Washington, D.C. 20433 United States	202-473-8918	473-8110	Avonderosten@worldbank.org
Wangati	Fred	FARA/SPAAR Task Force Member	Kenya		(2542) 891273	
Witte	Eric	USAID	1300 Pen. Ave, N.W. Washington, D.C. 20523-2110 United States	202-712-5079	216-3010	Ewitte@usaid.gov
Wolgin	Jerome	USAID	1300 Pennsylvania Avenue, N.W. Washington, D.C. 20523 United States	202-712-1803	216-3373	Jerry@usaid.gov