# SASAKAWA AFRICA ASSOCIATION



# **PROGRESS REPORT 2010**



### ABOUT SAA, SG2000 AND SAFE

The agricultural projects of the Sasakawa Africa Association (SAA) are operated as joint ventures of two organizations – SAA and the Global 2000 Program of the Carter Center in Atlanta, Georgia (USA). There are currently four SG2000 country projects – in Ethiopia, Mali, Nigeria and Uganda – for which SAA serves as the lead management organization. Former US President Jimmy Carter and his advisors work through the Global 2000 Program to provide policy advice to national political leaders in support of SG2000 project objectives. Funding for SG2000 projects comes principally from The Nippon Foundation of Japan, whose Chairman is Yohei Sasakawa and whose President is Takeju Ogata.

SAA relies on the Sasakawa Africa Fund for Extension Education (SAFE) – a legally separate organization also funded by The Nippon Foundation – to provide leadership for building human resource capacity in agricultural extension. These two organizations share a common Board of Directors and work together to harmonize and implement their highly complementary agendas.



### SAA Board of Directors

(as of December 2010) Ruth K. Oniang'o, Kenya, Chair Masa Iwanaga, Japan, Vice Chair Christopher Dowswell, USA Gebisa Ejeta, USA Jean F. Freymond, Switzerland, Secretary Jiro Hanyu, Japan John Hardman, USA Katsumi Hirano, Japan Masaaki Miyamoto, Japan Shuichi Ohno, Japan Nicéphore D. Soglo, Benin

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Tareke Berhe, Thematic Director, Crop Productivity Enhancement *(retired 2010)* Andreas Oswald, Germany, Thematic Director, Crop Productivity Enhancement *(from July 2010)* Leonides Halos-Kim, Philippines, Thematic Director, Post-harvest Handling and Agroprocessing Marcel Galiba, Thematic Director, Public–Private Partnerships for Extension Delivery and Market Access Justin Wangila, Kenya, Thematic Director, Monitoring, Evaluation and Learning Abou Bethe, Mali Country Director Aberra Debelo, Ethiopia Country Director Sani Miko, Nigeria Country Director Emmanuel Kayaayo, Acting Uganda Country Director Michio Ito, Senior Program Officer, Japan Shushan Negussie, Regional Administrative Manager, Ethiopia Asnakech Sisay, Regional Financial Officer, Ethiopia Maki Seki, Program Officer, Japan

**Sayako Tokusue,** Program Officer, Japan **Yoko Yokoyama,** Assistant Program Officer, Japan

### SAFE Associate Staff

from Winrock International Mercy Akeredolu, Nigeria Assa Kanté, Mali Jeff Mutimba, Ethiopia

### **MESSAGE FROM THE CHAIR**



Dr. Juliana Rwelamira, SAA Managing Director (far left) and Professor Ruth Oniang'o, SAA Board Chair (far right) visiting farmers in Mali.

### CHAIR, SASAKAWA AFRICA ASSOCIATION HON. PROFESSOR RUTH K. ONIANG'O

Professor Oniang'o has had a distinguished career as a teacher, development leader and parliamentarian. She was a Professor of Food Science and Nutrition at Jomo Kenyatta University of Agriculture in Nairobi. She is founder and editor of the African Journal of Food, Agriculture, Nutrition and Development and leader of the Rural Outreach Program, a Kenya-based NGO that supports resource-poor farmers in production and agroprocessing at the community level. She has served on various international boards, such as the International Fertilizer Development Center (IFDC), the International Rice Research Institute (IRRI), and the Australian Centre of International Agricultural Research (ACIAR). She served on advisory committees of the International Food Policy Research Institute (IFPRI), the HarvestPlus Initiative, the Bill and Melinda Gates Foundation (BMGF), and the University of Leeds Africa College Initiative. She was a member of the Kenyan parliament from 2002 to 2007, and Shadow Minister for Education. She currently chairs the Kenyan Government's thematic group for food security and nutrition. She received her BSc and MSc degrees from Washington State University in the USA and her PhD from the University of Nairobi.

Shortly before Norman Borlaug died in 2009, I was asked to join the SAA Board of Directors, an honor I readily accepted. Since the early 1990s I had been a consultant to the SG2000 program in Tanzania and then in the early 2000s to SG2000-Uganda. I had seen the work of the organization from the ground level and I liked what I saw. My involvement focused on women farmers and strategies to improve nutrition though improved livelihoods. Another aspect that interested me was post-harvest technologies once smallholder farmers had been made to realize bumper harvests.

The invitation to join Norman Borlaug's organization meant even more to me. I had known Norman for about 20 years. I greatly admired his commitment and undying persistence in helping to feed a hungry world. I could relate to this as I too was always concerned about the many hungry people on my own continent of Africa. I knew Dr. Borlaug was ill and that SAA was an organization in transition. I was soon joined by World Food Prize Laureate, Professor Gebisa Ejeta, as the third African on the SAA Board (former President of Benin, Nicéphore Soglo, also serves on the Board). Gebisa and I shared histories with Dr. Borlaug and felt a duty to help guide his beloved SAA into the future after his passing.

In 2010, I was asked to become the SAA Board Chair, a position accepted with some trepidation. It is a daunting challenge to be asked to replace Norman Borlaug. In fact, I doubt that it can be done. Dr Borlaug is one of the greatest figures in world agricultural history. But the need to continue the work he began nearly 25 years ago, following the Ethiopian famine of 1984, is as urgent today as it was then.

SAA is at a key moment in its history. It has undergone a major restructuring in its organizational vision, mission, and goals. Many of its staff members are new to the organization, most are African by birth, and nearly 40% are now female. All this is different.

SAA is committed to helping national agricultural extension systems to transform themselves from ones that focus primarily on crop productivity to ones capable of providing farmers and rural people with training and advisory services all along the value chain. This transformation requires changes in the way colleges and universities teach agricultural extension. It requires the development of pluralistic systems of agricultural extension, ones in which governments are joined by the private sector, the NGO community, and farmer-based organizations in delivering services. It requires partnerships and collaborative actions. It also involves reaching the 70-80% of smallholder farmers, especially women, who heretofore have been un-served or underserved by not only national agricultural extension systems, but by financial institutions as well. Finally, the transformation in agricultural extension must go hand-in-hand with corresponding changes in agricultural policy and regulatory systems, in greater



SAA is concerned with increasing calories and improving nutrition. In this quality protein maize 'village' in Gombe, Nigeria, widespread adoption of nutritionally superior maize has occurred.

investments in agricultural research, rural infrastructure and market-based institutions, and in the development of financial intermediaries needed to transform African agriculture from a largely subsistence-based activity to one that can stimulate industrialization and sustained economic growth.

Some say that the SG2000 program was ahead of its time when it set out in 1986 to introduce productivity-enhancing technologies to smallholder farmers. Through millions of crop demonstrations, it was proven that Africa had the agricultural technology in hand to initiate its own Green Revolution. The program also showed that smallholder farmers were ready and eager to take up new, yield-increasing technologies. But it also showed that focusing on the supply side transformation only is not enough. The market must supply farmers with the necessary incentives if African agriculture is to be transformed. In the pages that follow, highlights of SAA's work and progress during 2010 are provided. Greater detail can be found in the SAA website and other publications. I hope the reader is as excited as I am to see the changes underway in SAA and to wish it God speed in its new path. Together, we can make it. Much gratitude goes to all our partners, both big and small; to the good will and cooperation of the governments of countries we work in and to all the farmers that have committed to work with SAA. It has been 25 years, but we still have a long way to go.

#### Hon. Professor Ruth K. Oniang'o

Chair of Board Nairobi

## MANAGEMENT REPORT 2010

Considerable progress was made in 2010 in implementing the new SAA organizational structure and matrix management approach. All thematic and country director positions were filled and much of the recruitment of country program staff in different thematic areas and in management was completed. SAA staffing levels in 2010 were 50% above those of 2008, when the restructuring process began.

Five thematic directors lead planning, programming, capacity building and quality control in the following areas:

- Crop productivity enhancement
- Post-harvest handling and agroprocessing
- Public–private partnerships for extension delivery and market access
- Human resource development
- Monitoring, evaluation, learning and sharing

Thematic directors work with the thematic staff assigned to each of the SG2000 countries. The four country directors drive SG2000 country programs. Country directors also have the flexibility, in consultation with the technical directors and the senior management team, to tailor individualized programs of work that fit country needs and opportunities.

To be effective, the matrix organization requires excellent vertical and horizontal communication, strong mutual respect and understanding between and among thematic and country directors, and a modus operandi that is integrated and synergistic. SAA is determined to become such an organization. Achieving this level of communications and cooperation will be a challenge for SAA, but doable if the staff are committed to achieving it.

SAA has organized itself to work along as much of the value chain as possible. We envision more pluralistic public–private systems of extension in the future, ones in which private sector organizations, farmer organizations, and non-governmental organizations (NGOs) play a larger role in sharing the responsibility for providing smallholder agricultural advisory services in the context of a fuller expression of agricultural value chains.

There is also an increasing realization that the smallholder sector is neither homogenous nor static. Only the more affluent smallholders have the human and physical assets to adopt a 'moving up' strategy of participating in agricultural value chains and generating a sustainable livelihood from farming. Such farmers may represent only 15 to 20% of the total farming population. Smallholders with insufficient physical assets to generate a reasonable livelihood, but with the capabilities of health and education, may enhance their livelihoods by 'moving out' of farming and participating in rural or urban labor markets. The poorest smallholders have insufficient assets to sustain even a subsistence livelihood but also lack other livelihood options. For this group, 'hanging on' involves social protection and investing in children to provide the next generation with the livelihood options that are not available to their parents. The constraints faced by women vary depending upon their assets and also their circumstances.

### **Borlaug Symposium**

In July 2010 SAA held a high-level symposium in Addis Ababa, both to honor its founder and president, the late Dr. Norman Borlaug and to roll out its new organizational strategy and introduce its new leadership to key policy makers in SG2000 project countries. The Symposium was attended by about 200 people, including ministers of agriculture, university vice chancellors and deans from 10 of the 14 countries where SG2000 has worked across the continent, parliamentarians, and representatives of bilateral donor agencies, private foundations, agribusinesses, and farmer organizations.

The Symposium was opened with a message from Ethiopian Prime Minister, Meles Zenawi, who began the tributes to Dr. Borlaug who died in September 2009. Meles's tributes were continued by President Jimmy Carter, who co-founded the Sasakawa-Global 2000 Agricultural Initiative with Dr. Borlaug and Ryoichi Sasakawa in 1986. Dr. Akin Adesina, Vice President of the Alliance for a Green Revolution in Africa (AGRA) and a protégé of Dr. Borlaug, gave a stirring eulogy to Borlaug's extraordinary life and achievements. The closing remarks were made by former President Joachim Chissano of Mozambique who reminded the audience of Dr. Borlaug's dream of a commercial African agriculture made up mainly of small to intermediate-sized family farms that used modern science-based technologies.

Presentations and discussions focused on current realities and challenges facing African agriculture, from perspectives of smallholder research, extension, market linkages and human resource development. It was organized into four themes – the host country Ethiopia's agricultural development policy and



Former U.S. President Jimmy Carter describes the SG 2000 crop demonstration methodology at the Borlaug Symposium.

strategy; crop productivity and closing the yield gap; improving post-harvest handling, value addition and marketing; and agricultural education's challenges and imperatives.

The Managing Directors of SAA and its sister organization, the Sasakawa Fund for Extension Education (SAFE), presented the audience with an advanced look at our new vision and mission statement and program goals and objectives. Valuable contributions were made by the participants and these will feed into finalizing new Strategic Plans for SAA and SAFE.

### **New Board Chair**

SAA Board member, Professor Ruth Oniang'o from Kenya was elected Board Chair at the November 2010 annual meetings, replacing Dr. Norman Borlaug. Professor Oniang'o's work in nutrition, food sciences and smallholder development make her well-suited to guide SAA on its new course, one in which women farmers and the value chain perspective figure prominently in its smallholder extension and development work.

### **Resource mobilization**

Throughout its history, SAA has enjoyed the strong support of The Nippon Foundation, Japan's largest private philanthropic organization. In the late 1970s and early 1980s, a number of African countries were struggling to cope with worsening hunger caused mainly by prolonged drought. Ryoichi Sasakawa (The Nippon Foundation's founder) responded by providing food aid to several of the hardest hit countries. But it was clear to him that food aid provided only partial and temporary relief. It was then that he reached out to Dr. Norman Borlaug and to former US President Jimmy Carter in search of a more sustainable solution to Africa's food challenges. His vision was for a Green Revolution in Africa, similar to that occurring in the Asian Subcontinent, and he was prepared to fund the long-term effort needed to achieve it. Weak and generally ineffective extension services were identified as a key problem, and SAA was formed to help public extension organizations strengthen their delivery of existing and new technologies and information to farmers.

Over the years, and under the leadership of Yohei Sasakawa (Ryoichi's son), The Nippon Foundation has continued its enduring support of SAA's efforts to improve the effectiveness of extension advisory services in selected African countries. Such long-term support is a rarity in the history of development organizations, and it has enabled SAA to focus on the implementation of its SG2000 country programs without worrying about raising funds to keep its programs going. On occasion, small amounts of complementary funding from other organizations were obtained to implement specific activities in focus countries, but the vast majority of SAA funding came from The Nippon Foundation. The same was true for the SAFE, which was established in 1992 by the SAA Board (in 2004 SAFE became a separate organization with The Nippon Foundation funding).



The SG 2000-Mali program is a sub-contractor to the Institut d'Economie Rural (IER) on a project funded by AGRA to promote fertilizer 'micro-dosing' on millet and sorghum.

### The need to scale up

In recent years, however, as the complexities and challenges of African agriculture have become better understood, the need to broaden the agendas of national extension services has been recognized. SAA and SAFE have responded with new priorities and programmatic approaches that require additional sources of funds to fully implement them.

Fortunately, The Nippon Foundation has indicated its firm intention to continue supporting the SAA and SAFE programs into the foreseeable future. With this solid base of support, the fund-raising challenge is thus one of mobilizing complementary resources that can be used to build the two organizations and intensify their efforts on behalf of resource-poor smallholder farmers in focus countries.

The process of expanding SAA's funding base began in 2009 and continued in 2010. By 2012, a 50% funding increase over 2008 is expected and by 2014, a 100% increase. Several new projects received final approval in 2010, which have enabled SAA to significantly ramp up its program of work in the coming years. Resource mobilization efforts are focusing on five categories of potential investors:

- Private foundations This category of investor is expected to remain the major source of funding for SAA. In 2010 The Nippon Foundation committed US\$ 7 million to SAA and US\$ 2 million to SAFE to support program activities. In October 2010, SAA signed a US\$ 5.7 million 4-year project agreement with the Bill & Melinda Gates Foundation (BMGF) to strengthen work with the Government of Ethiopia to improve the impact and sustainability of its agricultural extension services. SAA is also a sub-contractor on a project in Mali funded by the Alliance for a Green Revolution in Africa (AGRA) that was established with the Institut de Economie Rural (IER), the national agricultural research organization, to develop sustainable soil fertility strategies for sorghum and millet. In the future, private foundations are expected to supply about 65% of SAA funding.
- National governments SAA is requesting earmarked financial support from its partner governments. In a first attempt in January 2010, eight northern State Executive Governors in Nigeria agreed to provide additional support for local SG2000 programs. Four states Adamawa, Bauchi, Zamfara and Jigawa signed formal agreements in 2010 to each transfer \$30 million Naira per year (about \$200,000) to a special drawing account for mutually agreed SG2000 project activities in their state. In July 2010, Jigawa state transferred funds followed by Adamawa state at the end of the year. After the recent national and state elections in April–May 2010, two new governors, and one re-elected

governor have pledged to release promised state funds in 2011. This counterpart funding will improve government funding of extension, especially for operations (transport, inputs, training and coordination). Such funding also forms a key component in SAA's strategy to ensure the long-term sustainability of its project activities. Discussions have also been initiated with governments in other SG2000 project countries. About 15% of SAA funding is anticipated from this category in future years.

- Official development assistance ODA funding to SAA is increasing. Since 2009, SAA has been a partner in the World Food Program's Purchase for Progress (WFP P4P) project in Mali, Ethiopia and Uganda. SAA receives funds to assist farmer organizations to supply grain to the WFP local purchase programs. Training is being provided in crop productivity enhancement and improved post-harvest handling to supply grain that meets WFP procurement standards. P4P is helping to establish bulking centers with the necessary grain conditioning equipment and storage structures. SAA also coordinates the Millet and Sorghum Initiative project (second phase 2008–12) supported by the International Fund for Agricultural Development (IFAD), dedicated to expanding commercial market demand for value added products in Burkina Faso, Chad, Niger, Mali and Senegal. SAA received approval in 2010 from the Japanese International Cooperation Agency (JICA) for a women's agroprocessing enterprise development project in Ethiopia. SAA is also a service provider in the USAID - Markets I project. Good opportunities exist for developing smallholder extension programs that promote market-led, value chain enhancement. About 15% of SAA funding is anticipated from this category in future years.
- Private Sector SAA seeks to mobilize private agribusiness companies, large and small, to supply public sector crop training and demonstrations of productivity-enhancing technologies, within a code of ethics framework that ensures full transparency. About 5% of SAA funding is anticipated from this category of investor.
- **Farmers** Agricultural extension is a labor-intensive and inherently costly activity. While governments pay for salaries, they rarely allocate adequate operational funds. This is a pervasive problem in African extension that greatly limits effectiveness and impact. It is unlikely that the needed funds will come from government. Hence, village-based extension workers need to develop a revenue model that permits them to generate sufficient income to cover local operating costs. The target extension revenue per farmer-participant is US\$5/year. While not funding SAA directly, such local revenue generation models will help ensure sustainability of recommended extension methods and activities, and could cover most of local extension variable cost operations.

### A TRIBUTE TO TWO DEDICATED STAFF MEMBERS WHO RETIRED IN 2010

### DR. TAREKE BERHE - TWENTY YEARS OF SERVICE TO SAA

Tareke Berhe (Ethiopian by origin; naturalized US citizen) graduated from Alemaya University and began his career working for the Ethiopian



Institute of Agricultural Research (IAR) as its first teff breeder. In 1968, Dr. Berhe attended the CIMMYT in-service wheat training course in Mexico under the tutelage of Norman Borlaug. Impressed with his hard work, Borlaug recommended Berhe for Rockefeller Foundation fellowships to pursue first a MSc at the University of Nebraska and later a PhD at Kansas State University. After working for ICRISAT and IITA, Dr. Berhe joined the Global 2000 agricultural program in 1989 in Zambia and remained until the project was concluded in mid-1991. He then transferred to the SG2000 Ghana program, and in 1996 opened the new SG2000 Guinea program where he remained as Director. In 2004, Dr. Berhe became the SAA Regional Rice Director. With the SAA reorganization, he became SAA Director for Crop Productivity Enhancement in 2009, a position he held until is retirement in February2010.

Dr. Berhe is a man of varied interests. Although he dedicated many years of his life to agricultural extension, he retained a keen interest in agricultural research. He was especially interested in teff improvement, where he remains at the cutting edge of breakthroughs in yield potential. His work in rice promotion has been widely heralded, including in the SAA Newsletter, Feeding the Future, Issue 27. He is an excellent trainer and teacher, qualities that added to his success throughout his career at SAA.

### DR. MARCEL GALIBA - SAA'S LONGEST SERVING STAFF MEMBER

Marcel Galiba brought his full time employment to a conclusion at the end of 2010. He was SAA's longest serving staff member. Over his 24-year career, he served as a country director in Ghana, Benin, Togo, Burkina Faso and Mali. He was a leader in helping SAA to develop a theory of change that went beyond raising



crop productivity. He developed pioneering programs and partnerships in savings and loan associations, farmer associations, grain exchanges, seed exchanges, and commercialization of new higher value products from basic foods. He also developed innovative programs to introduce green manure crops and a range of soil conservation measures into crop productivity programs. He had a integrated vision of smallholder development and many of his ideas are embedded in SAA's new strategic vision.

Dr Galiba remained as director for Theme 3 (Public– Private Partnerships) until December 2010; more details about his career are available on page 11.

## THEME 1 CROP PRODUCTIVITY ENHANCEMENT

The introduction and promotion of productivity-enhancing food crop technologies has been the heart of the SG2000 agricultural program since its inception in 1986. The emphasis has been on cereals, which make up 50% of the sub-Saharan African food supply. Packages of improved technologies (comprising mainly fertilizer and improved varieties plus crop management information) have been introduced to more than 3 million farmers through extension demonstration plots. Crop yields in these plots have been typically 2–3 times greater than those obtained by farmers. Despite this potential, it is unlikely that more than 20–25% of farmers adopted the recommended packages, especially the fertilizer recommendations. The packages were just too expensive for most smallholder farmers and access to the inputs was often a serious stumbling block.

In 2009, SAA began a new effort to introduce a more participatory approach in which farmers work with extension staff to select from a menu of options the kinds of technologies they feel may be most appropriate to their circumstances. For example, we are offering two to three options for soil fertility management, some with lower doses of chemical fertilizer combined with greater use of organic sources. Technology promotion is now conditioned by a more explicit objective to increase farmer incomes (not just yields and total production). Thus, cost and risk considerations weigh more heavily in deciding which technologies to demonstrate.

SAA is seeking to allocate 70% of our Theme 1 resources to reaching farmers previously not served by extension advisory services, especially women farmers but also resource-poor farmers and those in more remote locations. The remaining 30% of Theme 1 resources is directed at the relatively better-off smallholder farmers, who traditionally are 'net food sellers' or have the potential to become so. Here, the priority is high yield potential and grain quality, with an eye on maximizing value addition and income. This work is channeled through farmers' associations, which are needed for smallholder farmers to engage successfully in commercial markets.

Theme 1 specific objectives are:

- To assess productivity gaps and identify appropriate technologies to increase agricultural productivity, production and income, in sustainable ways.
- To develop, adapt and refine capacity building and strengthening activities for the establishment of an efficient, cost-effective system of knowledge and skills generation and transfer for extension officers and farmers.
- To develop, evaluate and implement specific extension approaches to integrate under-served smallholders and women farmers in agricultural extension systems.
- To search, access, adapt and use new knowledge, skills and technologies to improve extension efforts and agricultural

### THEME DIRECTOR DR. ANDREAS OSWALD



Dr. Andreas Oswald (Germany) was appointed as Director of the Crop Productivity Enhancement thematic program, effective July 2010. He earned his PhD in Agricultural Sciences at the Institute of Tropical Sciences, Justus-Liebig University (Giessen) in 1993. From 1995–2000, he served as an Adjunct

Scientist with the International Maize and Wheat Improvement Center (CIMMYT), focusing on the control of Striga, and from 2001–2004 as a Cropping Systems Agronomist at the Africa Rice Center (WARDA). Before joining SAA, Dr. Oswald served as an Integrated Crop Management Expert for the International Potato Center (CIP), with responsibility for developing strategies and technologies for cropping systems and soil fertility management for potato and sweet potato in the Andean region, sub-Saharan Africa and Southeast Asia.

productivity, and communicate demands and challenges to the research sector and/or other relevant stakeholders.

- To integrate crop productivity enhancement into the value chain approach of SAA to make use of synergies with the other themes to serve farmers more efficiently.
- To contribute to evidence on the outputs and outcomes of our activities, document and communicate results and conclusions to partners, stakeholders and interested groups and institutions.

Crop management training, heavily field-centered, is offered to extension subject matter specialists, frontline extension officers, community-based facilitators, smallholder farmers and other stakeholders, such as input dealers and seed producers. For farmers, extension officers and community-based facilitators, training is provided at the beginning, in the middle, and at the end of the cropping season. Training is also provided to members of farmers' organizations (led by Theme 3, but with Theme 1 involvement). Sessions revolve around farming as a commercial enterprise and include planning and priority setting, the selection of technologies, budgeting, and cost/benefit comparisons.



Reaching women farmers is a major SAA objective today. The womenassisted demonstrations (WADs) are oversubscribed by smallholder female farmers.

### Farmer learning platforms

The SG2000 country programs began implementing farmer learning platforms in 2009 as the main training and extension methodology. Farmer learning platforms consist of three types of demonstration plots: technology option plots, women assisted demonstrations, and farmer-initiated production test plots.

Technology option plots are normally 1,500 m<sup>2</sup> in size, and divided into three contiguous 500 m<sup>2</sup> sub-plots. The first sub-plot is devoted to demonstrating the official national agricultural research centers' recommendations. The second is a lower-cost (intermediate) variation of the same, and the third is the lowest-cost option that still provides a measurable yield and profit impact.

Women assisted demonstrations are simplified versions of the technology option plots. They are intended specifically for resource-poor women farmers who have been excluded in the past from direct involvement in crop demonstrations and, as a result, whose technical knowledge and agronomic performance in the field lags behind the average for the community. Women assisted demonstrations comprise lower-cost options of a particular technology (but still with strong impact potential).

They are normally 500 to 1,000 m<sup>2</sup> in size. About 10–15 women organized into a 'self help group' are assigned a women assisted demonstration.

Technology option plots and women assisted demonstrations serve as the primary focal points for community- and groupbased agronomic training and technology evaluation. Technology option plots are used to introduce technological innovations to the larger community and serve as sites for community-based field days.

Many farmers who participate in the farmer learning platform training and field days will then experiment with the demonstrated new technology options on their own land and at their own expense before making a final decision to adopt and scale up production. We call these plots production test plots. Farmers who establish these plots purchase the inputs, use whatever plot size they wish, and are free to select one of the several options that were demonstrated. Technical advice may be provided as needed, but there is no intensive supervision by extension and SAA program staff.

### Activities in 2010

The new Theme Director for Crop Productivity Enhancement took office on 1 July 2010. After familiarizing himself with SAA operations and attending the Borlaug Symposium, he visited the country teams and field activities in Mali, Nigeria, Uganda and Ethiopia. A log-frame and activity plans were developed for 2011 together with the country teams and presented to the SAA management during the retreat at Cape Coast in September 2010.

The SAA crop menu includes 17 different crops spanning the four countries – maize, beans, upland rice, soybeans, groundnuts, cassava, sweet potatoes, millet, sorghum, teff, wheat, haricot beans, potatoes, cowpea, sesame, tomato and pepper. Approximately 1,480 technology option plots and 1,980 women assisted demonstrations were established. In addition, farmers established approximately 16,000 production test plots, slightly lower than planned in Ethiopia and Nigeria due to flooding and cattle damage. About 550 extension officers, 450 communitybased facilitators and 20,000 farmers participated in training sessions in the four countries.

In November, a Concepts and Procedures Extension Workshop in Crop Productivity Enhancement was conducted in Addis Ababa for the entire Theme 1 team, plus coordinators from some of the other themes. This workshop was only the first of many planned. Guidelines are needed on how to work with representative farmers to plan the content of the technology option plots and women assisted demonstrations, improve selection of farmer learning platform sites, data collection and analysis.

## THEME 2 POST-HARVEST HANDLING AND AGROPROCESSING

### THEME DIRECTOR MRS. LEONIDES HALOS-KIM



Mrs. Leonides Halos-Kim (Philippines) is an experienced Agricultural Engineer who has been working in the international realm since 1980, when she joined IRRI's Agricultural Engineering Department. Mrs. Halos-Kim received her MSc in Engineering from the Asian Institute of Technology (Thailand) in 1985 and is presently working on her PhD in Rural Development

(Central Luzon State Open University). She joined IITA in 1991 as a Research Specialist in Agricultural and Food Processing Engineering, and served as the Head of its Post-Harvest Engineering Unit from 1999–2004. She worked with SAA as a consultant from 2005–2008 before joining the Post-Harvest Handling and Agroprocessing Program full-time. With the departure of Mr. Toshio Mado, she was appointed Theme Director (effective January 1, 2010).

### Post-harvest value addition

Enhancing crop productivity in food crops is generally not enough to lift smallholder farmers out of poverty. Farmers must also add value to their primary production and also diversify their range of income-earning activities, both on and off the farm.

Theme 3 staff members seek to assist farmers to add value to agricultural products after production. This is achieved through activities undertaken to meet four specific objectives:

- To promote the use of appropriate post-harvest handling and storage technologies that reduce losses, improve quality and food safety, and enhance smallholder farmers' food security and income.
- To strengthen extension capacity to provide training in value-adding agroprocessing technologies and promote offfarm rural enterprise development for resource-poor farmers, especially women.
- To promote development of networks of private service providers to supply value-adding mechanized services to farmers, as required, from planting to harvesting and agroprocessing and farm-to-market transport.
- To build and strengthen the capacity of private enterprises to supply and maintain recommended post-harvest and agroprocessing machinery and equipment, including drying and storage facilities.

Much of the Theme 2 post-harvest handling work is directed toward strengthening the competiveness of commerciallyoriented smallholder farmers engaged in Theme 1 crop productivity enhancement activities. Theme 2 staff members help farmers to improve the efficiency and quality of postharvest handling: grain should be unbroken, un-infested, free of debris, and sufficiently dry to be stored without threat of molds. Extension training programs sensitize farmers to market requirements for quality grain. Theme 2 seeks to introduce improved technology (largely mechanized) for threshing/shelling, drying and milling. Reducing post-harvest storage losses is a priority for all participating smallholder farmers, whether they are food-insecure or more commercially oriented.

A good example of SAA's strategy to improve post-harvest handling is the introduction of mechanized teff threshing in Shashemene, Ethiopia, which has been highlighted previously. Teff threshed by machine takes a fraction of the time required with traditional methods, it is cleaner and the grain is less damaged. However, a motorized threshing machine is too expensive and has too much capacity to serve only one farmer. To meet the demand, there has been a rapid scaling up of some 200 small-scale commercial threshing enterprises. This small private rural business model can be applied to maize shelling, rice threshing and milling, and flour making. It is now being applied by SAA in other focus countries to scale-up the adoption of potentially profitable post-harvest technologies through private service providers.

Theme 2 staff members also work with resource-poor, foodinsecure families to provide off-farm employment opportunities through the development of agroprocessing enterprises. Womenbased farmer groups are being assisted to produce marketable products from locally available crops that can be sold in local markets and in larger cities to supplement farm income. These processed food products are prepared using household recipes, and home economists provide technical advice to improve nutritional value and hygiene (in processing and packaging) to make the new products more appealing to consumers. The products are proving to be popular, both locally and in major towns and cities, and offer the potential for developing future agribusinesses.

SAA is also interested in assisting rural dwellers, especially women, to develop agribusinesses that add value to the crops in the SAA crop menu. Examples are parboiling of rice, oil extraction from groundnuts, producing condiments from soybeans, and making flour from various cereals. Focusing on agro-enterprises built around food crops addressed under Theme 1 provides an additional benefit from improving crop productivity, as well as from improved post-harvest handling and agroprocessing. This sort of integrated activity represents the fullest expression of the value chain within SAA's new smallholder development model. In all its extension work, SAA seeks to introduce productivityenhancing technology to improve efficiency and quality. In the Post-harvest Handling and Agroprocessing (PHAP) Program, we help smallholder farmers and entrepreneurs to identify and verify improved technologies, including processes and equipment. We also provide each country program with needed information on new technologies and how they can be sourced. We work with machinery fabricators to develop and demonstrate new equipment, as well as provide training to service providers and other end users. We train local manufacturers so that they can sustainably and costeffectively produce high-quality post-harvest and agroprocessing equipment. We work to ensure that good maintenance systems are also put into place. And, in collaboration with Theme 3, we provide technical support to each country program in identifying market linkages along crop value chains to facilitate the use of value-adding technologies.

### Activities in 2010

During the first part of 2010, we completed the recruitment of team members for Theme 2, so that all four countries now have a Theme Coordinator and at least one Program Officer (except Mali, which was still missing a Program Officer). We thus now have in place almost the full team to take forward the PHAP activities in each country. A program of staff capacity building was initiated. One workshop was held in 2010; others are being planned for 2011 and beyond. For Theme 2 staff, the workshops will be more intensive. For staff in other thematic areas, some capacity building in post-harvest handling and agroprocessing will also be offered.

To guide its work in each SG2000 country program, Theme 2 staff members undertook needs assessment surveys to determine farmers' views on the most pressing post-harvest problems and express their preferences for interventions along the value chain. SAA provided training for enumerators and developed a semi-structured questionnaire format, which can be modified according to the local situation. Ministry of Agriculture extension departments in each country advised on respondent selection, and assisted with interviews.

A number of new prototypes were under development in 2010. A grain cleaner was tested for efficiency and durability, and its adaptation for other crops, including teff and beans, was tested. Work continued to evaluate and adapt a maize sheller, a modular rubber roll rice mill, and wet-type grinder for processing groundnut and sheanut into butter. An operators' manual was compiled for the grain cleaner and maize sheller, which will be printed and distributed.

A 2-week training course on the manufacture and operation of the maize sheller and grain cleaner was held for manufacturers in Addis Ababa in May and June, 2010. As well as technical aspects of manufacture, a heavy emphasis was placed on operational safety, quality control, costing and operation.



Bringing mechanized post-harvest handling and processing services to smallholder farmers through the development of private service providers is a major SAA program goal.

## THEME 3 PUBLIC-PRIVATE PARTNERSHIPS FOR EXTENSION DELIVERY AND MARKET ACCESS

### THEME DIRECTOR DR. MARCEL GALIBA



Dr. Galiba (Senegal) was raised in Dakar before going to study agriculture at the University of Abidjan. Following his graduation in 1974 he went to work for the Senegalese National Agriculture Research Institute (INSRA). In 1976, he was awarded a scholarship from Canada's IDRC to study for a MSc at the University of Laval in Quebec,

returning to INSRA in 1979, where he worked on sorghum improvement. In 1982, Dr. Galiba received a scholarship from USAID to attend Texas A&M University. Here he encountered – and impressed – Norman Borlaug. In 1986 Borlaug invited him to join the SG2000 agricultural program, and in 1990 appointed him as SG2000 Ghana Country Director, a position he held for one year. In 1991, Dr. Galiba became the SG2000 Country Director for Benin and Togo, shifting again in 1996 to become SG2000 Country Director for Burkina Faso and Mali. In 2010, Dr. Galiba became the SAA Director for Public–Private Partnerships and for Extension Delivery and Market Access. He retired from SAA at the end of 2010.

Agricultural extension in sub-Saharan Africa has for many years been poorly funded and depends upon ODA assistance to fund many of its activities. Governments have shouldered personnel costs but have allocated very few funds for operations. Except in times of international funding, most national extension systems have operated poorly and been ineffective.

At the same time, smallholder farmers often have difficulty accessing markets. While middlemen play an important role in linking farmers to markets, they often take advantage of unorganized farmers.

The overall objective of Theme 3 is to establish public–private partnerships in support of extension delivery and smallholder agricultural development through more profitable access to markets. This will be achieved through activities around the following specific objectives:

 Develop revenue-generating models to make smallholder agricultural advisory services more scalable and sustainable. This includes enlisting farm input suppliers, agro-service providers, and farmer organizations to help finance smallholder agricultural extension advisory services.

- Support the emergence of farmer organizations, capable of securing the needed information, inputs, credit, and scale to discover and access markets. This includes coaching farmer organizations to conduct market demand and value chain analysis and develop viable business development plans.
- Organize and market specialized training courses in input supply, seed production, crop management and extension methods, on a cost recovery basis, for private organizations in the seed, crop and agro-input sectors.
- Help broker new business opportunities for partner farmer organizations and entrepreneurs, especially women and youths.
- Facilitate commercial credit services for partner farmer organizations and entrepreneurs.
- Support new business development activities for SAA projects.

## Developing new models for financing extension

We seek to convince private input suppliers (of seed, fertilizer, crop protection chemicals and equipment) to help finance smallholder agricultural extension services. Over time, as the private input supply chains become stronger, it is likely that they will provide extension services to farmers themselves, as has occurred in industrialized countries. However, in the near- and intermediate-term, partnerships are needed, between public and private organizations, and with farmer organizations as well.

In this partnership model, governments would conduct most of the research on basic food crops and would play a leading role in providing extension services to smallholder farmers. Private input suppliers would help to finance field demonstrations and training programs. Farmer organizations would help to finance some of the local (village, township) operating costs for extension, including training and possibly stipends for community-based facilitators (extension paraprofessionals).

Developing extension advisory service models involving partnerships between public and private sector organizations and with the farmers themselves contributing, received a considerable boost in late 2010 with the signing of an agreement with the Bill & Melinda Gates Foundation (BMGF) to engage with the Government of Ethiopia's Ministry of Agriculture and Oxfam America in an extension strengthening project. A principal objective is to develop a community-based participatory model of extension, in which the local farmers also help to finance some of the local operational costs. The Ethiopia project will provide us with an opportunity to work with farmers to develop this model.

### Strengthening farmer organizations

Accessing the market in more beneficial ways is a major reason for establishing farmer organizations. SG2000 country programs have become increasingly active in facilitating direct linkages between farmers' groups and commercial buyers, and



Participating farmers are discovering the market for quality grain in urban areas. SAA is committed to ensuring that smallholder farmers benefit from the growth in urban market demand.

strengthening the ability of participating farmers to negotiate and fulfill beneficial contractual agreements. We are working with farmer organizations to orient members to become more sensitive to market signals (price) to determine their production decisions, adopting best practices to meet grain quality standards, source financial services to expand economic activities, and improve collective bargaining with both input suppliers and output buyers.

SAA has partnered with the World Food Programme's Purchase for Progress (WFP P4P) initiative in three countries – Ethiopia, Mali and Uganda. P4P is an attempt to extend WFP's local and regional purchasing to include small-scale farmers. This requires that WFP grain quality standards are met (moisture content, minimum percentage of broken grain and debris) and that smallholders aggregate their surpluses so that at least 50, and preferably 100, tons are available for collection. The SG2000 country programs are working as 'supply side' partners to P4P, providing training and technical backstopping to organized farmers in crop productivity enhancement, post-harvest handling, and farmer organization governance and management.

## Specialized training for input supply organizations

Strengthening the willingness and ability of local agribusinesses, especially seed companies and input dealers, to offer competent extension support to smallholders is an important objective for Theme 3. Among SAA's focus countries, Uganda has the largest number of private agro-dealers – more than 2,000 (an average of 29 per district). These businesses are often the first contact for farmers in need of advisory services, yet they usually lack adequate training in basic agronomic practices. Moreover, the inputs they sell are normally packaged for commercial-scale operations rather than smallholder farmers.

A key constraint to improving crop productivity in SAA's focus countries is weak seed production and supply systems. There is a mix of public and private seed producers in the four countries. In general, the private sector tends to lean towards hybrid seed production, leaving open-pollinated varieties to farmer organizations and community-level producers. However, as experience in Ethiopia shows, given good training and supervision, farmer organizations can also handle hybrid production.

## Linking farmer organizations to agricultural credit

Most governments in the focus SG2000 countries offer some loans to smallholder farmers. This is true in Ethiopia, Mali and Nigeria. Typically, the loans are for production input for 0.5 to 1 hectare. Some of the participating farmers in the Ministry of Agriculture/ SG2000 crop demonstration programs are often among those selected to receive such loans. But the number of loan recipients is limited in such government programs. Banks shy away from making such loans, since farmers lack collateral and rainfed farming is inherently risky. In general, most smallholder farmers are forced to self-finance the inputs they need.

SAA is involved in inventory credit (warrantage) schemes through the SG2000-Mali and Uganda programs and several projects (WFP P4P and AGRA). In these, grain is delivered to a bonded warehouse and farmers use the receipt as collateral to obtain partial credit from financial institutions.

### Activities in 2010

Theme 3 activities in 2010 included continued Theme 3 staff recruiting for the country offices. This was complete by mid-year. However, the Theme 3 coordinator in Uganda resigned and this left a key position to fill at year-end. A Concepts and Procedures workshop was held in July for all Theme 3 staff, with some participation from the other thematic groups as well. A draft manual was developed. Individual country activities are reported in the country report sections.

## THEME 4 HUMAN RESOURCE DEVELOPMENT

Human resource development remains a key component in the new SAA matrix, and management of this theme has been placed in the experienced hands of the Sasakawa Africa Fund for Extension Education (SAFE).

Concerted efforts are needed to broaden the skills of national extension staff and to increase the ranks of qualified women extension professionals. Embracing the 'value chain perspective' in extension should help in the recruitment of more women extension officers, since recruitment can also come from food technology, home economics, nutrition and business development sectors.

There is an increasing trend in many African countries – including Mali and Uganda among the SAA focus countries – to rely on community-based facilitators (some times called lead farmers) to serve as extension paraprofessionals, as the number of public sector extension workers declines. Only in Ethiopia is the number of extension workers increasing. This trend requires new strategies for training these paraprofessionals.

The shift away from the public provision of agricultural extension services towards more pluralistic systems that combine public financing with outsourcing arrangements involving private sector service delivery is changing employment prospects in agricultural extension. Private service provider companies and NGOs are likely to play bigger roles in providing extension advice to farmers in the future. This calls for innovations in training by universities.

SAFE will work to ensure that universities and colleges produce the right type and caliber of extension staff equipped to support expanded interventions by farmers along the value chain. SAFE and its partner institutions have decided to revise and develop the curricula to reflect the needs of the entire agricultural value chain in order to respond to farmers' needs more comprehensively.

The need for appropriate training materials for extension workers and farmers is especially great. Many of the professionals being recruited – in SAA and elsewhere – have good technical credentials but very little frontline extension experience. Thus they tend to copy from their university textbooks and produce training materials inappropriate for use at the field level. Experienced university faculty from departments of agricultural extension and many of the mid-career students in the SAFE programs can help to transform these sophisticated resource materials into ones that can be effective with frontline extension staff and farmers. SAFE will also help to coordinate development of short courses and training modules to support SAA field work.

### The way forward

Given the growing demand for mid-career training and the difficulties for candidates employed by the private sector and

### THEME DIRECTOR DR. DEOLA NAIBAKELAO



Dr. Deola Naibakelao (Chad) is the Managing Director of the Sasakawa Africa Fund for Extension Education (SAFE). He earned his PhD in Rural Sociology in 1982 from the University of Lyon II (France), and joined SAA in 1991 as a Program Officer based in Ghana. In 1993, he was asked to

serve as the SAA representative in Ghana for the newly established SAFE program. In 1998, he was appointed SAFE Program Director, based in Burkina Faso, and in 2002 he assumed overall leadership of SAFE, with responsibility for 14 programs in 9 countries. Under SAA's new structure, Theme 4 (Human Resource Development) is being managed by SAFE. Dr. Naibakelao is thus wearing two hats: Managing Director of SAFE and Theme Director for Human Resource Development.

for women to join full-time programs, it is imperative to offer new modes of instruction. Distance learning, sandwich courses, weekend courses, short courses, and so on are all being considered to augment our traditional offerings. We have begun developing training modules to fit alternative delivery modes, and this work will remain a high priority moving forward.

There is ample evidence that smallholder farmers can increase their incomes substantially if they process and add value to their produce. Extension services still focus mainly on production and tend to be ill-equipped to provide advice further along the value chain. For this reason, our curricula review and development process will address key elements of agricultural value chains, markets and empowering farmer organizations.

We must also ensure that universities and colleges broaden their admission criteria to provide opportunities to female candidates with backgrounds in non-agricultural production fields, such as home economics, nutrition, food science and development studies. Moreover, faculty gender imbalances must also be addressed. There are very few female lecturers involved in SAFE programs, and individual scholarships should be provided to potential female lecturers in order to increase their number.

### Activities in 2010

SAFE continued to see a steady increase in student intake during the academic year 2009/10, this despite the fact that the number of programs remained unchanged. SAFE is still operating 13 programs in nine countries, including the four SAA focus countries. The total number of beneficiaries increased from 2,854 in 2009 to 3,564 in 2010, indicating the continued relevance of the SAFE initiative and the interest of the public and private sectors in capitalizing on our programs as a means to strengthen the skills of staff.

### The importance of networking

Over the years, SAFE has instituted regional technical workshops, where participating institutions, including ministries of agriculture can come together to discuss issues related to SAFE. In 2010, this workshop was held at the University of Cape Coast in Ghana, on 13–15 September. Participants came from Ghana, Nigeria, Benin, Burkina Faso, Mali and two observers attended from Tanzania and Ethiopia. This year the workshop focused on the implications of mainstreaming the value chain approach for curriculum development and revitalization.

Bringing together SAFE participating institutions is one of the most powerful tools for building and sustaining strong linkages among partners. Periodic workshops and exchange visits are organized to facilitate this end. A regional workshop for East



Through supervised enterprise projects (SEPs) mid-career BSc students work with farmers in field-based projects for 6–9 months. These Haramaya University students are engaged in a SEP with farmers from Harrar, Ethiopia.

Africa was organized in Addis Ababa, Ethiopia in 2010 and attended by representatives from SAFE partner universities and colleges and Ministries of Agriculture from Malawi, Ethiopia, Tanzania and Uganda.

Another regional workshop for Francophone institutions hosting SAFE programs was held in Bamako, Mali, in May 2010 and attended by representatives from Benin, Burkina Faso and Mali. The main objective of the meeting was to harmonize curricula around key emerging areas (with special focus on agricultural value chains) in order to remain demand-driven and relevant. The participants also took a critical look at gender issues as they pertain to training.

#### Table 1: SAFE statistics for academic years 1993/94–2010/11

Mid-career BSc and Diploma Courses	Graduated	Current	Total
University of Cape Coast, Ghana (B.Sc.)	421	27	448
Kawadaso Agric. College, Ghana (Diploma)	462	51	513
Haramaya, Ethiopia (B.Sc.)	364	63	427
Hawasa, Ethiopia (B.Sc.)	81	73	154
Makerere, Uganda (B.Sc.)	184	111	295
Sokoine, Tanzania (B.Sc.)	500	339	839
IPR/IFRA, Mali (Maîtrise)	109	75	184
Samanko Centre, Mali (Diploma)	77	53	130
Ahmadu Bello, Nigeria (B.Sc.)	88	49	137
Bayero University-Kano, Nigeria	32	95	127
Abomey-Calavi, Benin (Licence)	51	16	67
Bobo-Dioulasso, Burkina Faso (Licence )	37	36	73
Bunda College, Malawi (B.Sc.)	39	23	62
Sub-Total	2,445	1,011	3,456
Scholarships	Graduated	Current	Total
Diploma	6	0	6
B.Sc.	32	0	32
M.Sc.	59	2	61
PhD	5	4	9
Sub-Total	102	6	108
Grand Total	2,547	1,017	3,564

## THEME 5 MONITORING, EVALUATION, LEARNING AND SHARING

Over much of its 24-year history, SAA has not undertaken formal monitoring and evaluation of its program activities. No baseline data was collected when program activities began in each of the 15 program countries. No professional adoption studies were conducted on adoption rates and patterns from the technologies demonstrated in more than 3 million plots. There have been four external program reviews, but these reviews were largely qualitative, since an organized body of data about program activities and impacts was unavailable.

This is not to say that the SG2000 programs had no impact on smallholder crop productivity or total production. They did. Moreover, SG2000 staff member were legendary for the time they spent in the field with farmers, reviewing outcomes and assessing the agronomic efficacy of recommended technologies. But, the lack of an organized monitoring, evaluation, learning and sharing system was an organizational weakness, one that lessened the overall impact of SAA investments and reduced the influence the program had in international development circles.

SAA now seeks to establish a relevant, efficient and effective monitoring, evaluation, learning and sharing system to drive SAA programs. This is to be achieved through undertaking activities associated with the following specific objectives:

- To promote and institutionalize monitoring, evaluation, learning and sharing, involving partners for evidence-based reporting and impact assessment at SAA.
- To assess and identify farmers', other target beneficiaries' and partners' needs to prioritize SAA interventions.
- To effectively and efficiently collect and use baseline data and information on SAA interventions.
- To collect, analyze, use and report in a continuous and systematic manner, monitoring data and information from selected SAA intervention areas.
- To develop and implement appropriate strategies for periodic internally and externally commissioned evaluations to assess performance – relevance, efficiency, effectiveness, impact and sustainability – and guide decision making.
- To develop and implement appropriate methodologies and tools to measure and assess SAA program(s) and project(s)' impacts on smallholder farmers, partners and agricultural development in the four focus countries.
- To identify, capture, document and share good practices and lessons on SAA interventions.

These objectives embody the SAA commitment to become an evidence-based organization that better understands and documents the impacts of its investments. Theme 5 will work with and through the other SAA themes and the SG2000 country programs to implement a cost-effective monitoring, evaluation, learning and sharing system. The system will monitor activity inputs and outputs, and facilitate early learning. For example, the system should enable the rapid appraisal of

### THEME DIRECTOR MR. JUSTINE WANGILA

Mr. Justine Wangila (Kenya) assumed his responsibilities as Director of Theme 5, Monitoring, Evaluation, Learning and Sharing (MELS), in June 2010. Mr. Wangila is an economist by training, with a MSc from the University of Nairobi (1990). He has 16 years of experience working as an economist and statistician with various public and private organizations in Kenya,



Uganda, Tanzania, Malawi, Rwanda, Ethiopia, Madagascar and the USA. From 1998–2005 he served as an Associate Economist with ICRAF, before joining the Millennium Development Goals Centre (Earth Institute at Columbia University, USA) as a Regional Agricultural Economist based in Kenya. Much of Mr. Wangila's work has focused on the development and use of complex socio-economic data sets related to monitoring, evaluation and impact assessment.

proposed technologies and activities, the management of key information across the matrix, and the timely modification of SAA investments. Over time, extensive field data will be collected, and the performance of partners will be tracked and documented.

Theme 5 is responsible for providing monitoring, evaluation and learning for all SAA activities, whether the funding comes from core or extra-core project donors. Theme 5 staff members also provide technical backstopping to other thematic staff. An interesting challenge for the MELS theme is to become fully understood and accepted by all SAA staff, as an integral service to enable other themes to achieve their own objectives. The danger is that MELS becomes seen as the SAA policeman.

### CIMMYT Impact Assessment Project ends

SAA's first step towards establishing a fully-fledged MELS program began in 2006 when The Nippon Foundation funded the International Maize and Wheat Improvement Center (CIMMYT) to undertake an independent project, 'Knowledge System to Monitor and Assess Impacts of SAA and Partners' Activities'. The project ran until 2010 and covered two SAA focus countries – Uganda and Ethiopia.



SAA employs a range of monitoring and evaluation tools to assess the efficacy and impact of its work. Pictured here, members of the MELS team conduct interviews with Ethiopian farmers.

The CIMMYT project employed a team of social scientists and economists trained in the basics of social science and participatory research, and of GIS and spatial analysis scientists. The project assessed impacts on the livelihoods of smallholder farmers. It covered both the direct and indirect, positive and negative, and intended and unintended impacts. Significant spillovers were also assessed, including on local non-participants, NGOs, the private sector, and on local development efforts and policies.

The project's findings and their apparent policy implications are being communicated through workshops and publications, as well as through a project website (http://SG2000ia.cimmyt.org). More than 20 technical economic reports, including published drafts of international peer reviewed journal papers, can be accessed there. With password access (available on request), users can view over 16 datasets, including the results of baseline data, community surveys, periodic monitoring and so on, from six primary sites in Ethiopia and three in Uganda where the SG2000 country programs operate.

The lessons learned through the CIMMYT Impacts Assessment Project have helped to guide SAA in the development of a more comprehensive SAA MELS system.

### Activities in 2010

After joining SAA, the Theme 5 Director's first task was to review the CIMMYT Impact Assessment Project document and review the various outputs. He also studied the consultancy report done by CIMMYT in 2009 under the BMGF planning grant, which provided a proposed design for its MELS system. The next order of business was to become familiar with SAA and to recruit Theme 5 teams for the SG2000 country programs. Activities during 2010 were focused on team building, supporting other thematic groups, backstopping MELS needs for extra-core projects (e.g. WFP P4P), and developing the tools to enable MELS to be fully operational.

Following Theme 2 and 3 Concepts and Procedures workshops in June, it was realized that there was a need for training on logframes for all SAA and SAFE country and thematic staff. As the log-frames provide the basis from which MELS can operate, this was given priority. A range of training materials were developed and training sessions held for country and thematic staff in all four countries in August and September 2010.

Generic output and outcome indicators were developed by the four Theme 5 Coordinators in Nigeria, Ethiopia, Mali and Uganda, based on the log-frames from Themes 1–4. Building on these, generic baseline data collection instruments and tools were developed, as well as standardized needs assessment tools for use across the four focus countries.

# SG2000-ETHIOPIA PROGRAM HIGHLIGHTS

During 2010, SG2000-Ethiopia restructured and reorganized its work, in order to bring it in line with the new SAA matrix and strategy. Although improving crop productivity remains a major activity, the new strategy focuses more attention on post-harvest opportunities, and especially on improving the access of women farmers and agroprocessing groups to agricultural extension advisory services. In addition, SG2000-Ethiopia is working to strengthen public–private partnerships in ways that will enable the country's emerging private sector to help strengthen extension advisory delivery systems.

### Crop productivity enhancement

As part of the Theme 1 activities, SG2000-Ethiopia used a participatory approach to establish training platforms where farmers can learn by doing and adapt new technologies to their own needs and circumstances. A growing number of women farmers were involved in the learning process in 2010, primarily through the use of women assisted demonstrations.

A total of 348 technology option plots and 522 women assisted demonstrations were established in Ethiopia in 2010. As well as the five priority crops planned, these demonstrations included five cereals, one legume and one vegetable crop. SG2000-Ethiopia provided the inputs required for both technology option plots and women assisted demonstrations, as well as backstopping for the extension officers who provide technical support and supervision to technology option plot and women assisted demonstration farmers.

In addition to these demonstration plots, SG2000 facilitates the establishment of production test plots by more advanced farmers who are accustomed to buying and using modern inputs, though in some cases they may need technical advice on how to properly apply them. In 2010, some 8,700 production test plots were established. Where needed, technical advice was provided by District Agricultural Officers to these farmers.

The crops included in the technology option plots, women assisted demonstrations and production test plots (rice, wheat, teff, maize, haricot bean, sorghum and potato) were selected by participating farmers, based on the crops' local importance and priority. SG2000 staff provided practical training for establishing and managing the plots for 870 farmers, about 60% of whom were women, as well as 174 District Agricultural Officers, and 64 subject matter specialists.

Farmers field days were organized to showcase the distinct features of each technology option and their effects on crop productivity in selected intervention areas. Eleven 'higher level field days' were held, attended by 179 subject matter specialists and higher officials, and 1,175 farmers. A further 45 field days were held at community-level farmer training centers. Over 5,000 people (including guests) attended these events in total.

### COUNTRY DIRECTOR DR. ABERRA DEBELO

Dr. Aberra Debelo (Ethiopia) was appointed Country Director of SG2000-Ethiopia in 2009. He served as the program's Country Coordinator since 2005 and was promoted to Director under SAA's new structure. Dr. Debelo



earned his PhD in Crop Science (Agronomy and Breeding) at Oklahoma State University (USA) in 1992. Before joining SAA, he was the Coordinator of the Eastern and Central Africa Regional Sorghum and Millet Research Network (2003–2005), and served from 1998–2003 as the Deputy Director General of the Ethiopian Agriculture Research Organization (now known as the Ethiopian Institute of Agricultural Research). Dr. Debelo was also the Ethiopian Sorghum Improvement Coordinator from 1992– 1998, and the country's Maize Improvement Coordinator from 1982–1986.

### Post-harvest and agroprocessing

As part of our activities under Theme 2, SG2000-Ethiopia conducted a needs assessment for post-harvest and agroprocessing learning platforms (PHELPs) in three selected areas. Based on the assessment, three PHELPs were established at the farmer training centers in Enebi Chifar, Denkaka and Semen Bellesa Kebeles. A further four demonstrations of improved technologies including multi-crop threshers, a grain cleaner and harvester were also held. Following these demonstrations, four famers have purchased the multi-crop thresher and are now providing threshing services to the surrounding farmers, while demand for such services appears to be increasing.

Eight women's groups (with a total membership of 305 women farmers) organized and launched their own agroprocessing businesses in eight woredas across the three target states. Initial indications are that these new processing centers hold considerable promise for improving the livelihoods of group members.

## Public-private partnerships and market access

In line with the objectives of Theme 3, public–private partnership activities in Ethiopia aim to build the capacity of the country's emerging private sector agricultural enterprises, such



Extension services that connect research to farmers can prevent serious disease losses. This farmer's disease-resistant wheat escaped damage in a recent wheat rust epidemic in Ethiopia.

as input suppliers and post-production processors, in order to bolster agricultural advisory services to smallholder farmers.

In Ethiopia, the public sector is still dominant in seed production systems, but private, community-based seed production is on the rise. In 2010, SG2000-Ethiopia ran 22 training sessions for farmers and trainers in four states, providing capacity building to over 180 trainers and 200 farmers on seed multiplication. The training sessions focused on hybrid maize, potato and wheat and, in addition to technical production techniques, also covered seed marketing. As there is strong demand for hybrid maize seed in Oromia and Amahara regions, farmers were encouraged to tap into the market through outgrower schemes. These outgrowers received all inputs from the government through their cooperatives, and established hybrid maize seed production on 2,457 hectares (see Table 2).

### Table 2: Hybrid maize seed production in Oromia & Amahara regions of Ethiopia

Region	Zone	Male	Female	Hybrid	Area (ha)
Oromia	West Arsi	50	2	BH543	15
		46	5	BH660	23
Amahara	West Gojam	689	20	BH540	185
		2,143	217	BH660	1,334
	North Gonder	920	120	BH660	900
Total		3,848	364		2,457

A number of private companies in Ethiopia also agreed to become private partners to SAA in extension activities.

Relationships between farmers, researchers, extension professionals and agribusiness companies have always been relatively weak in many countries in the region. In an effort to overcome these gaps, SG2000-Ethiopia and the Asela Malt Factory co-sponsored a 2-day meeting in June 2010 to establish rules and regulations for Research–Extension–Farmer Advisory Councils. Manuals compiled as a result were distributed to all council members and stakeholders.

### Human resource development

The program at Haramaya University in Ethiopia continues to make progress even though SAFE funding has been phased out. Staff have continued to carry out field visits in support of Supervised Enterprise Projects (SEPs), despite transportation constraints at the level of the university as a whole. This is particularly impressive as SEP supervision is the most challenging aspect of the program, requiring considerable time, human resources and transportation resources. The program is well supported by the University President, who takes a keen personal interest in program activities.

At Hawassa University, 28 students (including six women) graduated in July 2010. Students presented their SEP reports and proposals at a workshop, which was well attended by College of Agriculture staff. SAFE has begun working with Bahir Dar University to develop a mid-career program, which will be launched in 2012. The University is currently involved in the SAFE-initiated national value chain extension training needs survey.

## Monitoring, evaluation, learning and sharing

As the new Theme 5 gets underway in Ethiopia, activities were largely focused on providing MELS support to the new project – Strengthening the Ethiopian Agricultural Extension Delivery System – funded by the Bill & Melinda Gates Foundation. Key activities included the design of an MELS implementation plan, preparation of tools for carrying out baseline surveys and needs assessments, and the finalization of the thematic and country logframes for Ethiopia.

The MELS team also supported the SAA project, Self-Sustainability of Women's Agroprocessing Cooperatives in Rural Ethiopia, funded by the Japan International Cooperation Agency (JICA). The Ethiopian Theme 5 Coordinator participated in the design of baseline survey tools, was trained on data collection, sampling and data management, and deployed a team of supervisors and enumerators to carry out the project baseline survey during the last quarter of 2010.

## SG2000-MALI PROGRAM HIGHLIGHTS

### COUNTRY DIRECTOR DR. ABOU BERTHE



Dr. Abou Berthe (Mali) took over as Country Director of SG2000-Mali in mid-2009. He received a PhD in Animal Science (with a minor in agricultural economics and extension) from the University of Florida at Gainesville (USA). Before joining SAA, he was the Director of Research, and the Chief of Farming System and Natural Resource

Management Research at the Institute of Rural Economy at Sotuba (Bamako). Dr. Berthe has over 25 years in agricultural research management in West Africa, with much of his time devoted to farming systems management and participatory natural resource development. He has been involved in a number of collaborative rural development and research projects sponsored by such organizations as GEF and USAID, and the University of Hawaii (USA) and University of Oslo (Norway).

Despite a late start to the 2009/10 cropping season and uneven rainfall, the overall food situation in Mali was good in 2010. Cereal production reached 6.33 million tons, which was 3% higher than projected and an increase of 31.5% over the production levels achieved in 2008/09. The country appears to be on track for reaching its 10 million ton cereal production target by 2012.

This progress in food production reflects the government's recognition of agriculture as the main engine of the national economy, and the high priority it assigns to reducing poverty. The yields of traditional food crops, however – including millet and sorghum, which provide the basis for food security in most rural areas – have been flat or declining since 2007.

In the past, the SG2000-Mali Program focused primarily on improving crop productivity and production. Although crop productivity remains central to the Program's work, in 2010 the change in programmatic emphasis focused additional attention on fostering innovation further along the value chains of target crops, and on nurturing key partnerships.

### Crop productivity enhancement

During 2010, the Theme 1 team in Mali implemented a number of farmer learning platforms at the village/community

level. Each farmer learning platform comprised an average of three technology option plots and three plots that are reserved exclusively for women farmers and known as women assisted demonstrations.

In 2010, a total of 300 technology option plots and women assisted demonstrations were established in 100 villages located in four administrative regions. These demonstrated improved varieties of six different crops (millet, sorghum, maize, rice, groundnut and cowpea) as well as different technology options (including different fertilizer types and levels, soil fertility improvement, Striga control and intercropping). The various options included in the technology option plots and women assisted demonstrations are shown in Figure 1. The average yields achieved in the technology option plots were universally higher than the average national yields of the focus crops and resulted in impressive indicative benefit/cost ratios.

### Post-harvest and agroprocessing

Post-harvest needs and priorities across Mali vary according to rural livelihood systems. In 2009, the Mali Theme 2 team conducted post-harvest needs assessment surveys aimed at identifying best-bet interventions. The surveys were revealing. Crops that hold the greatest potential for processing include cowpea (in Sahelian livelihood systems), and maize and rice (in Soudanian systems). In order to facilitate better processing of these (and other) crops, better equipment (such as multi-grain threshers and improved maize shellers) is needed.

Following on from this, 2010 activities focused on providing training to manufacturers and women's groups. Local manufacturers received training in the design of a harvester and multipurpose cleaner over a period of three weeks in December. During the training course, participants manufactured and tested the multipurpose harvester and grain cleaner based on a prototype from the Salam Center.



Figure 1: Options included in technology option plots (TOPs) in Mali

Source: SG2000-Mali 2010 Annual Report

Post-harvest losses in both quantity and quality are a challenge in the development of new market opportunities at national and regional levels. Women's groups in three villages in Sikasso and Segou regions attended training sessions covering basic postharvest operations and pre-processing of major local grains.

## Public-private partnerships and market access

Innovative public–private partnerships (PPPs) are needed to mobilize new resources and develop new agricultural technologies throughout the value chain. In Mali, this has particularly focused on the use of PPPs to increase farmers' access to improved seed.

SG2000-Mali has supported the development of farmers' seed companies by providing start-up and development capital. Two such companies are now functioning, in Selinkegny and Ouré villages. Three private enterprises – Faso Kaba, TOGUNA and Arc-en-Ciel – are also supporting demonstrations of seed, fertilizer and agrochemicals.

In 2009, SG2000-Mali began working with the World Food Programme (WFP) to facilitate the supply of locally produced commodities to WFP's P4P initiative. In 2010, six farmer organizations were involved, who delivered 85% of millet and 97% of sorghum planned, with a total value of nearly US\$170,000 (see Table 3).

SG2000-Mali is also a partner in the AGRA/IER-sponsored micro-dosing fertilizer project in Mali, which began in 2009. In 2010, 963 micro-dose demonstration plots and 20 farmer field schools were established as part of the project.

### Human resource development

The degree program at the Rural Polytechnic for Training and Applied Research (IPR/IFRA) in Mali, and the diploma program at Samanko Agricultural College have made steady progress, in terms of sustained increases in student intake, the number of graduates, and outreach to rural communities through the students' SEPs. The Ministry of Agriculture remains committed

#### Table 3: Commodities delivered to WFP in Mali under P4P in 2010

	No. of FOs/	Sorghum		Millet			
Villages	bulking points	Planned (tons)	Realized (tons)	%	Planned (tons)	Realized (tons)	%
Loutana	8	50	83.6	167	50	4.4	9
Ouré	7	20	1.5	8	11.5	11.5	100
Dioila	10	100	150	150	50	70	140
Kamba	6	50	2	4	50	20	40
Tingoni	4	0	0	-	100	15.5	16
Cinzana	11	0	17	_	150	288	192
Total	46	220	212.3	97	480	409.4	85



The NERICA upland rice varieties from the African Rice Center are proving to be well suited to rainfed growing conditions in Mali.

to the program and has established a budgetary provision to support the SEPs.

An external evaluation of the degree program at IPR/IFRA was also carried out, with financial assistance from the Canada Studies Center (CECI). This concurred with the findings of the new Technical Coordinator for Mali and Burkina Faso, Dr. Assa Kante, who devoted her doctoral thesis to "An assessment of the Sasakawa Africa Fund for Extension Education (SAFE) training program in Mali: graduates' perceptions of the training impact as well as opportunities and constraints related to supervised enterprise projects (SEPs)".

Both studies concluded that students and graduates are satisfied with the training program, which enables extension officers to become sound professionals in their field. The main employer of graduates from the course, the Ministry of Agriculture, is also satisfied with the training. However, graduates strongly recommended that the curriculum should cover a wider range of areas including post-harvest processing, marketing, management of agricultural enterprises, micro-finance and issues related to rural poor women.

## Monitoring, evaluation, learning and sharing

In Mali, 2010 was a year of team building in MELS, as well as providing support to other themes and partners in the country. The MELS team led monitoring and evaluation activities for all WFP P4P program partners; field agents were recruited to monitor P4P activities and collect field data in collaborating villages. A training course for baseline survey enumerators and supervisors was held from 15–17 September 2010, in order to ensure they were familiar with and understood the survey instruments.

# SG2000-NIGERIA PROGRAM HIGHLIGHTS

### COUNTRY DIRECTOR DR SANI MIKO



Dr. Sani Miko (Nigeria) joined SAA in 2009 as the SG2000-Nigeria Country Director. He obtained a PhD in Irrigation Agronomy in 1999 from Ahmadu Bello University (ABU) at Zaria (Nigeria). Dr. Miko began his career as an Assistant Lecturer in the Department of Agronomy at ABU in 1988, rising to the position of Senior Lecturer

in 2000, a position he held until 2004. He assumed the position of Senior Lecturer at Bayero University, Kano (BUK) in 2004 and was promoted to Reader in the BUK Department of Agronomy in 2005. Dr. Miko has long been interested in, and a strong advocate for, strengthening extension advisory services in the region, and worked with SAA during his university career to help improve the effectiveness of selected SG2000-Nigeria field programs.

In 2009, the SG2000-Nigeria Program shifted from its previous mode of operation (with its primary focus on increasing crop productivity) to a more holistic approach for strengthening the extension advisory services provided to farmers. Our new approach aims to strengthen the skills and credentials of extension workers; improve the effectiveness of public agricultural extension systems to provide smallholder farmers with a range of appropriate technology options; build more effective research, extension, farmer, and input supplier institutional linkages; and broaden and strengthen private sector extension advisory services.

Rains began early across the country in 2010, peaking relatively early in July. Across the country the rains were so heavy that floods occurred in many states devastating farms and fish ponds. Despite the heavy rains, significant increases in the production of major crops were recorded.

### Crop productivity enhancement

In order to assess agricultural production systems and farmers' needs prior to the start of the rainy season, the Theme 1 team in Nigeria made visits to farmers' communities across six different states. Almost 1,700 farmers (40% of whom were women) participated in the exercise. Based on the findings, farmer

learning platforms were established with 11 different crops (maize, sorghum, rice, millet, wheat, cowpea, peanut, soybean, sesame, tomato and pepper) and a focus on demonstrating fertilizer management and/or new varieties.

A total of 332 technology option plots and 662 women assisted demonstrations were established during the rainy season, as well as about 2,200 production test plots. Field days were held in the six states reaching 6,400 farmers.

### Post-harvest and agroprocessing

Needs assessment surveys were carried out in six states (Adamawa, Bauchi, Gombe, Kano, Jigawa and Zamfara) during 2010. The surveys aimed to identify promising processing opportunities in target crop value chains around which postharvest and agroprocessing activities can be established. They also sought to obtain information on the utility of existing prototypes of agroprocessing equipment, and about different storage structures currently in use, in order to help design appropriate post-production training and demonstration programs.

A total of 31 villages and 761 agroprocessors representing 32 different groups were identified for the survey. In total 475 processors were sampled, 460 of whom were women.

Based on the outcomes of the needs assessment, training sessions were organized for agroprocessors in three states (Adamawa, Jigawa and Kano). Between March and July 2010, group dynamics and management training workshops were attended by 147 agroprocessors. A training session for smallscale manufacturers was held at Bayero University Kano (BUK), attended by six small-scale manufacturers and university staff. A number of field days and demonstrations were also held to demonstrate the multi-crop thresher, cassava processing unit and the maize sheller.

### Table 4: Technology option plots in Nigeria, 2010

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Demonstrations (WADs) and Production Test Plots (PTPs) Total in Nigeria, 2010

Table 5: Women Assisted

Technology	Total	in Nigeria, 2010		
Maize fertilizer	88			
Maize variety	75	Technology	WADs	PTPs
Millet fertilizer	68	Maize	202	871
Sorghum variety	20	Millet	127	728
Rice fertilizer	8	Rice	64	71
Rice variety	25	Groundnut	92	101
Cowpea variety	12	Soybean	43	68
Soybean variety	9	Sesame	38	68
Sesame variety	5	Sorghum	34	169
Groundnut variety	22	Cowpea	62	129
TOTAL	332	TOTAL	662	2201



Women farmers' agroprocessing enterprises can increase incomes for smallholders with limited access to land, as in this cassava gari processing group in Adamawa State, Nigeria.

## Public-private partnerships and market access

Although agricultural extension has long been viewed as a public service issue, SG2000-Nigeria has been working with private agribusinesses for many years. Such enterprises have often provided inputs for field activities, and some go further to support specific activities such as demonstrations, building storage facilities and buying outputs. A stakeholder meeting held in March 2010 was attended by 67 participants to discuss access to finance and inputs. The meeting ended with pledges of support for the SG2000-Nigeria program from thirteen private companies.

Community seed outgrower schemes in Kano, Jigawa and Zamfara states supported by SG2000-Nigeria successfully produced 25.5 tons of improved seed in 2010. Four communitybased seed producers were linked to three seed companies, resulting in sales of 3.2 tons of seed.

As part of its efforts to promote greater local partnership, in January 2010 SAA invited eight Executive State Governors (from Adamawa, Bauchi, Gombe, Jigawa, Kaduna, Kano, Plateau and Zamfara States) to a round-table discussion focused on state government funding of SAA/SAFE activities in Nigeria. The states were invited to provide the equivalent of US\$ 200,000 per state in counterpart funding to the new partnership.

His Excellency, the Executive Governor of Adamawa State, Admiral Murtala H. Nyako (Rtd.) presided over this historic meeting. Several Governors attended personally and others sent personal representatives to the meeting. All responded positively to a proposal for cost sharing in the implementation of SAA/ SAFE activities for an initial period of five years.

#### Table 6: Public-private partnership activities in Nigeria, 2010

Partners	Activity
Notore Chemical Industries Ltd	Support 60 technology option plots for NPK (16:16:16) and urea fertilizer demonstrations.
Premier Seeds	Support community-based (CB) seed production with foundation seeds.
Dizengoff	Trial and demonstration of foliar fertilizer and herbicides in maize and rice.
Manoma Seeds	Demonstration of hybrid varieties.
Maslaha Seeds	Support CB seed production with foundation seeds and 18 women assisted demonstration plots.

Following the meeting, four states – Adamawa, Bauchi, Jigawa and Zamfara – signed a Memorandum of Understanding agreeing to share costs. Two states, Adamawa and Jigawa, had paid their contributions by December 2010.

### Human resource development

During 2010, the SAFE program at Bayero University Kano (BUK) was assessed by the National University Commission (NUC), against national quality standards for curriculum, strength of teaching staff, availability of teaching materials and admission requirements, among others. The program received full accreditation, which means it is now recognized as a degree awarding program in Nigeria.

Adamawa State University and Illorin University were also assessed for their potential to host SAFE programs. Both universities were found to have adequate lecture rooms, dormitories, and other physical facilities, as well as committed leadership and quality staff, to effectively implement a SAFE program.

### Monitoring, evaluation, learning and sharing

Most MELS activities in Nigeria focused on orientation, planning and systems development in 2010. Following the development of generic output and outcome indicators, baseline data collection instruments and tools, and standard needs assessment tools, the team also devised a baseline survey plan for implementation in the first quarter of 2011.

Monitoring visits were made to Theme 1 field sites in the states of Adamawa, Bauchi, Gombe, Jigawa, Kano and Zamfara with the aim of assuring the quality of data collection by field enumerators. The need for better training and revised data collection instruments was highlighted.

# SG2000-UGANDA PROGRAM HIGHLIGHTS

The SG2000-Uganda Program underwent a competitive staff recruitment process between September 2009 and March 2010. This brought on board a new Country Director in 2010, as well as four new Thematic Coordinators and two Program Officers. Unfortunately the Country Director stepped down after only five months. The position was filled temporarily by Emmanuel Kayaayo as Acting Country Director.

### Crop productivity enhancement

During the 2010 cropping season, SG2000-Uganda provided technical support under Theme 1 activities to farmers in 19 subcounties located in eight districts. The crops to be included in these farmer learning platforms were selected through a bottomup approach based on farmers' criteria, as well as market and food security considerations. Maize, beans, upland rice, soybeans, groundnuts, cassava, sweet potatoes and millet were included in technology option plots and women assisted demonstrations during 2010 (see tables 7 and 8).

A further 1,680 farmers tested different technologies with rice, maize, groundnut and soybean in production test plots. These technologies ranged from the timing of farm activities (planting, weeding, etc) to row planting or fertilizer applications. Over 2,100 people (43% of them women) attended field days, including farmers, extension advisors, local leaders and input dealers.

### Post-harvest and agroprocessing

Post-harvest losses in Uganda – estimated to be between 12 and 25% at the farm level – are a major challenge. Moreover, the majority of the country's smallholder farmers lack the capacity

Crop	TOPs	Male	Female	Total farmers
Soybeans	54	525	423	1,080
Maize	206	1,664	1,838	4,120
Groundnuts	96	732	900	1,920
Rice	42	421	293	840
Cassava	106	915	887	2,120
Total	504	4.257	4.341	10.080

#### Table 7: Technology option plots (TOPs) in Uganda, 2010

#### Table 8: Women assisted demonstrations (WADs), 2010

Crop	WADs	Total farmers
Soybeans	48	240
Maize	202	1,010
Groundnuts	85	425
Rice	37	185
Cassava	66	330
Beans	62	310
Millet	4	20
Total	504	2,520

### ACTING COUNTRY DIRECTOR MR. BATTSON RUSOKE 'EMMANUEL' KAYAAYO

Mr. Kayaayo has worked for SG2000-Uganda since the year 2000. He has served as acting director on several occasions, first in 2008–2009, and again in 2010, following the resignation of Dr. Sarah Ossiya in mid-year. He received his MSc degree in agricultural mechanization from the 2nd



Kharkov Industrial Pedagogical Institute, USSR in 1976. Mr. Kayaayo has more 30 years of broad experience in smallholder agricultural development, animal traction, and extension management. The Ugandan Ministry of Agriculture, Animal Industries, and Fishery (MAAIF) first deputed Kayaayo to SG2000-Uganda when it was established in 1996 as a subject matter specialist in small and intermediate enterprise development. He later retired from MAAIF and became S2000-Uganda National Program Coordinator/Administrator. In 2010, he was officially named Associate Director.

to engage in agroprocessing activities, which results in most farm produce being sold with little or no added value.

Needs assessment surveys were carried out in Luwereo district; focus groups were held during which 160 farmers and six key informants (district extension officers and district agricultural officers) were interviewed. The needs assessment survey focused on identifying constraints and resources available for improving post-harvest systems and promoting agroprocessing enterprises.

Over time, the goal is to establish Post-harvest Extension Learning Platforms where farmers can learn about technologies to reduce post-harvest losses and add value to their produce. Six of the existing One-Stop Center Associations (OSCAs) now host basic platforms, which will be strengthened to provide postproduction training to about 800 farmers.

During 2010, capacity building for the establishment of PHELPs began with the training of twenty women, ten farmers' leaders and ten extension workers, who attended a workshop for training of trainers. Participants will train farmers in various post-harvesting and agroprocessing enterprises in districts where SG2000-Uganda and the WFP Purchase for Progress (P4P) initiative operate.



Reducing grain storage losses and introducing inventory credit to commercially oriented smallholders, such as this Ugandan farmer and his son, are important SAA program objectives.

Farmers attended training workshops on post-harvest handling and quality control in large numbers in all districts where SG2000 works. About 1,730 farmers attended, 56% of whom were women. In eight districts training and demonstrations to improve post-harvest handling of various crops attracted over 3,000 farmers.

The SG2000-Uganda is continuing to work with JICA-Uganda in piloting the mobile delivery of post-harvest and agroprocessing services. Together the organizations are testing and further developing a mobile rice mill mounted on a small truck that can maneuver through narrow rural roads. This aims to improve accessibility, affordability and timeliness of milling services for farmers in remote areas.

## Public-private partnerships and market access

During 2010, the Theme 3 team in Uganda sought to identify and promote partnerships that will enable better farmer integration along important crop value chains. As a part of this effort, the Program continued to strengthen existing OSCAs and to facilitate smallholder market access.

The Program also helped to strengthen links with WFP's P4P initiative. Local bulking sites have been established, which are connected to satellite marketing centers that feed into a warehouse receipt system. This supplies discerning buyers like WFP. During 2010 a Memorandum of Understanding was signed with the WFP to increase farmers' access to grain markets under the P4P initiative.

In 2009, a partnership was launched with the Uganda National Agro-Inputs Dealers Association (UNADA), aimed at strengthening the ability of member dealers to offer sound agricultural advice and to encourage the repackaging of their products with smallholder customers in mind. This was formalized in a Memorandum of Understanding in January 2010. In the 72 districts in the country, a total of 2,061 input dealers or stockists have been identified.

In order to facilitate greater use of fertilizers and other inputs by smallholder farmers, SG2000-Uganda worked with input dealers to repackage input supplies into smaller packs that are more appropriate for smallholder farm sizes and financial means. The Program is now working with the UNADA and other partners to influence national policy on the re-packaging of inputs.

In 2010, SAA developed a curriculum and manual for Training of Trainers (TOTs) for input dealers, which were used to train 27 technical agricultural officers from 16 districts. Trained dealers receive start-up technical support as well as regular monitoring, and can access credit to help expand their enterprises; on the demand side, farmers adopting recommended agricultural practices are directed to identified, trained dealers.

Uganda's seed production and delivery systems have been in the hands of the private sector for over 10 years, and many private seed companies and agro-input dealers are organized under the umbrella of the Uganda Seed Trade Association (USTA). SG2000-Uganda has a partnership with USTA which aims to strengthen the capacity of seed companies and outgrowers to apply sound agronomic practices and to supply farmerfriendly packages. Three seed companies were identified to work with SG2000-Uganda, and one of these (Pearl Seeds Ltd) produced inputs for technology option plots and women assisted demonstrations. Some 68 women farmers were trained in bean seed production, but unfortunately production on the multiplication plots was severely affected by angular leaf spot and powdery mildew, reducing yields to only 15% of that expected.

### Human resource development

SAFE support to Makarere University in Uganda has been refocused toward a new delivery mode using distance learning. In 2009, the University began writing instructional materials for the distance learning version of the regular mid-career program. The program was approved by the Makerere University Senate in 2010, and has been sent to the National Council for Higher Education for accreditation.

## Monitoring, evaluation, learning and sharing

In Uganda, the MELS Theme Coordinator led a needs assessment for Theme 2 (PHAP) in Luwero District. The assessment entailed the development of data collection tools, training of enumerators, pretesting of questionnaires, data collection, entry and analysis. The MELS Theme Coordinator also facilitated and provided training on monitoring and reporting of SG2000 interventions as part of end of season training for extension officers and community-based facilitators.

### PUBLICATIONS

A number of publications are available from SAA, including the Progress Report 2009; the SAA newsletter, Feeding the Future; various Theme-related publications, and the SAA Annual Calendar. Please visit our website to access the full range of our publications, newsletters and videos.



Progress Report 2009



**Feeding the Future** 

FTF Issue 26



FTF Special Issue December 2010



Calendar 2010

### 2009 AND 2010 FINANCIAL REPORT HIGHLIGHTS (US dollars)

SAA		
	2010	2009
Approved Budget	7,105,270	6,585,261
Actual Spending	6,039,912	5,424,603
Actual Receipt	7,932,785	6,745,996
Cash Balance at the end of year	8,790,257	8,835,256
Details of Receipts		
Grant from The Nippon Foundation	6,800,000	6,500,000
Grant from the Bill and Melinda Gates	770.040	
Foundation	//3,948	-
Grant from JICA	90,882	-
Interest	10,390	26,680
Loan Recovery	1,021	66,326
Others	256,544	152,990

Details of Expenditures		
SG2000 country operation	2,550,784	2,085,858
Ethiopia Mali Nigeria Uganda	527,943 710,127 619,599 693,115	474,489 530,565 533,739 547,065
Thematic program operation	1,006,274	1,109,756
Crop Productivity Enhancement Post-harvest & Agroprocessing Public-Private Partnerships & Market Access Monitoring, Evaluation & Learning	207,983 404,488 231,238 162,565	411,021 462,283 236,452 –
Corporate program	2,454,389	2,184,720
Borlaug Fund account and others	8,929	44,269
JICA partnership program	19,536	-

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