Building Capacity for Enhancing Food Security: Experiences from Sasakawa Africa Fund for Extension Education (SAFE)

by

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Introduction

According to the IAC (2004), Africa is a continent full of promise and potential – rich in natural and human resources. But as Borlaug (1996) said ‘you can’t eat potential’. Kim et al. (2009) postulate that, although the potential for poverty reduction through the agricultural sector is greatest in sub-Saharan Africa (SSA), the food crisis has also had the most damaging impact in SSA. In comparison with other regions, SSA’s productivity levels for many food products are extremely low, and food production in SSA has not kept pace with the rapidly growing population. Higher agricultural productivity is thus a precondition for growth and development in most African countries, and increasing yields is a key to raising incomes and reducing poverty in rural areas as well as lowering food prices.

Chief among the reasons for the current low productivity is the low level of training of the agricultural extension professionals who are responsible for advising farmers on better methods of farming. They are poorly trained to drive the agricultural modernization process. Agricultural education institutions have special role here – that of ensuring that the wheels of food production and the entire value chain are well oiled with the necessary knowledge and skills to ensure continuous and efficient supply of safe food on a sustained basis (Mutimba et al 2010). This paper discusses the seventeen-year experience of an innovative extension training initiative by the Sasakawa Africa Fund for Extension Education (SAFE).

Sasakawa Africa Fund for Extension Education (SAFE)

The Sasakawa Africa Fund for Extension Education (SAFE) is the brainchild of the Sasakawa Africa Association (SAA). The SAA, whose founders were the late Nobel peace laureate, Norman E. Borlaug, the late Ryochi Sasakawa and former US President, Jimmy Carter, was established in 1986 to serve as lead management organization of the Sasakawa Global 2000 (SG2000) agricultural projects in sub-Saharan Africa (SSA). The mission of SG2000 is to assist smallholder farmers and governments in SSA to reduce poverty, enhance food security and protect the environment, through the adoption of productivity-enhancing agricultural technologies. All SAA programs are funded by The Nippon Foundation of Japan, whose President is Yohei Sasakawa.

After working with farmers, extension specialists and researchers for some time, SG2000 realized the need to upgrade the technical and human relations skills of mid-career agricultural extension professionals in Africa. SG2000 realized that improved technology alone, though essential, was not a sufficient pre-condition for moving agriculture forward. It recognized the crucial role of well-trained agricultural extension staff who are equipped to handle new
initiatives and programs for agricultural modernization. Consequently, in 1991, the SAA Board established the SAFE initiative to support efforts directed at strengthening extension education. SAA has teamed up with Winrock International, a leader in human resource development and enhancement of agricultural university training, to implement the SAFE initiative. The SAFE program started by giving scholarships to individuals to study overseas but soon realized that this was neither cost-effective nor sustainable and now focuses on enhancing the capacity of universities to develop responsive training programs for mid-career agricultural extension staff that possess diploma credentials in agriculture or related fields.

The SAFE initiative has expanded from one modest pilot program in Ghana in 1993 to 13 fully established programs spread across nine countries. The programs are at the following universities and colleges: University of Cape Coast and Kwadaso Agricultural College in Ghana, Haramaya University and Hawassa University in Ethiopia, Polytechnic Institute for Training and Applied Research (IPR) and Samanko Agricultural College in Mali, Ahmadu Bello University and Bayero University in Nigeria, Sokoine University in Tanzania, Makerere University in Uganda, Polytechnic University of Bobo Dioulasso in Burkina Faso, University of Abomey-Calavi in Republic of Benin and Bunda College of Agriculture in Malawi.

SAFE’s vision

Effective extension delivery systems in Sub-Saharan Africa that are based on farmer demands and needs along the entire value chain agriculture with special focus on the poor and marginalized.

SAFE’s mission

SAFE’s mission is to sensitize stakeholders on the need for more effective, demand driven agricultural and rural development advisory services, the implication of this for training mid-career advisory staff, and to strengthen the capacity of agricultural education institutions in sub-Saharan Africa to develop responsive formal continuing education programs.

SAFE’s guiding philosophy is that greater continuing educational opportunities can be created by strengthening the capacity of selected African Agricultural Education Institutions. In this way, an increased number of mid-career staff will have opportunities to receive quality extension education locally. Consequently, the SAFE program is primarily to support those institutions that are willing to be flexible in designing and implementing responsive programs in agricultural extension and rural development. The pillars of the SAFE’s initiative are the principles of:

- lifelong learning;
- demand-driven curricula;
- student-centered experiential learning (real life students’ action research projects; and,
  - rural leadership development.

Main goals

The SAFE’s initiative has four main goals:
1. To increase the stakeholders’ awareness of the need of continuously assessing knowledge and skills training needs of their advisory staff and for them to see mid-career formal training as means of filling gaps;
2. To ensure the existence of a critical mass of well trained advisory service providers and improve the quality of advisory service delivery to smallholder and marginalized farmers;
3. To diversify modes of delivery and broaden access to mid-career training programs; and,
4. To improve the gender balance of leadership in agricultural and rural development advisory services.

**Uniqueness of the diploma and BSc programs**

The programs being promoted by SAFE are unique in several aspects. They are demand-driven and based on identified needs. The curricula are streamlined to focus on the needs identified and therefore take shorter to complete. The programs buttress the practical experience of agricultural extension professionals to enable them to deal with the challenges of agricultural development in their respective countries.

The process of establishing a SAFE program involves: dialogue with stakeholders to establish a common vision; a systematic training needs assessment to define the needs more sharply; and, the design of a responsive curricula. The programs are run as a partnership, formalized through memoranda of understanding, between employers and the respective universities.

Perhaps the most important characteristic is the practical-oriented nature of the programs. They provide practical, hands-on laboratories, problem-focused courses and field-based enterprises. Experiential learning (learning by doing) is at the foundation of the programs. As part of their training, the students together with their employers, farmers and researchers, develop ‘supervised enterprise project’ proposals relevant to their job as extensionists that they go back and implement in their work places. Through participatory processes: students identify enterprises that hold potential for farmer improvement; they identify key success factors for each enterprise in terms of requisite knowledge and skills; based on the success factors, students assess farmers’ knowledge and practice, and identify opportunities for improvement; they then design intervention projects which they implement over a period of six to eight months. The process ensures efficiency of extension as it seeks to exploit areas of greatest potential in any given situation.

The students implement the projects under direct supervision of the university and their employers who own the programs. At the same time, the projects also provide unique and rare opportunities for academic staff to assess the relevance and effectiveness of their teaching and to identify other opportunities for learning from real life situations. The projects, also commonly known as Supervised Extension Projects (SEPs), provide a forum for bringing together the students, employers, farmers and the education institutions.

Secondly, teaching and learning is a sharing of a mixture of theoretical and practical experience between teaching staff and the students. Instruction is structured to take full advantage of the
two-way exchange of experiences. Students learn with their jobs in mind and always try to see where the new knowledge fits in their professional career.

**Impact of the programs**

The programs have had impact in several ways.

1. Students have worked on a wide range of projects – broadening opportunities for improving farmers’ welfare. While most projects have been on crops, students have also worked on other projects like catchment conservation, agro-forestry, sericulture, apiculture, alternative utilization of farm products, large and small livestock production, fuel-wood saving technologies, etc. The projects have lead to improved yields, improved product quality and introduced new sources of income which have benefited farmers.

2. In Ethiopia, female students have made visible impact with projects that have improved women’s welfare. These have included income generating projects like sericulture and improved butter churning technology; labour saving technologies for enset processing and fuel-wood saving stoves. The female student projects also broadened utilization of farm products like sweet potatoes (Ethiopia), cassava and bananas (Malawi) by introducing alternative methods of processing, preservation and food preparation thereby minimizing losses due to wastage.

Unfortunately, women enrolment on the program remains very low (see Table 1) as there are few women with the necessary entry qualifications (dipomas). In the early years, the program in Ethiopia received a boost from Winrock scholarships for women. As there were few women with diplomas in agriculture, the scholarship forced Haramaya University to admit women candidates with diplomas in home science. This was a breakthrough in two ways: it broadened women access to university education; and, the women students excelled in the program – which became an important lesson to the university. However, as soon as the scholarship project came to an end, intake figures fell sharply again as employers tend to nominate agricultural diploma holders only.

Makerere University also received a boost in women intake through Winrock’s women targeted programs in Uganda. However, unlike Ethiopia, the candidates were all diploma graduates. Uganda has relatively higher numbers of women graduates in different agricultural disciplines than other countries in SAFE program countries.
Table 1: Number of graduates per institution as of December 2009

<table>
<thead>
<tr>
<th>Institution</th>
<th>Male</th>
<th>Female (%)</th>
<th>Total</th>
</tr>
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<tbody>
<tr>
<td>Bunda College, University of Malawi</td>
<td>37</td>
<td>11 (22.9%)</td>
<td>48</td>
</tr>
<tr>
<td>Haramaya University, Ethiopia</td>
<td>266</td>
<td>46 (14.7%)</td>
<td>312</td>
</tr>
<tr>
<td>Hawassa University, Ethiopia</td>
<td>19</td>
<td>2 (9.5%)</td>
<td>21</td>
</tr>
<tr>
<td>Makerere University, Uganda</td>
<td>107</td>
<td>69 (39.5%)</td>
<td>176</td>
</tr>
<tr>
<td>Sokoine University</td>
<td>329</td>
<td>94 (22.2%)</td>
<td>423</td>
</tr>
<tr>
<td>University of Cape Coast, Ghana</td>
<td>295</td>
<td>78 (23.9%)</td>
<td>373</td>
</tr>
<tr>
<td>Kwadassso Agricultural College, Ghana</td>
<td>279</td>
<td>64 (18.7%)</td>
<td>343</td>
</tr>
<tr>
<td>IPR/IFRA, Mali</td>
<td>75</td>
<td>11 (12.8%)</td>
<td>86</td>
</tr>
<tr>
<td>Samanko Agricultural College, Mali</td>
<td>54</td>
<td>19 (26%)</td>
<td>73</td>
</tr>
<tr>
<td>University of Abomey Calavi, Benin</td>
<td>46</td>
<td>5 (9.8%)</td>
<td>51</td>
</tr>
<tr>
<td>University of Bobo Dioulasso, Burkina Faso</td>
<td>17</td>
<td>3 (15%)</td>
<td>20</td>
</tr>
<tr>
<td>Ahmadu Bello University, Nigeria</td>
<td>64</td>
<td>8 (11.1%)</td>
<td>72</td>
</tr>
<tr>
<td>Bayero University, Nigeria</td>
<td>-</td>
<td>-</td>
<td>-</td>
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3. The graduates now occupy positions of influence where they provide leadership in needs-based extension.

4. Based on the lessons drawn from the SAFE initiative and the successes thereof, several partner universities have embraced the philosophy of lifelong learning and have come up with programs designed along the SAFE model.

5. At the personal level, a graduate from Haramaya University summed it all when she said “…this is a liberating degree…” as it opened opportunities that were closed to diploma holders. Most have received promotions to senior positions while others have pursued further studies – out of whom some are now teaching at universities.

**Emerging challenge**

There is a growing realization that smallholder farmers do not maximize the full potential of their farm products and that, if they do not see the full benefits of their efforts, they may stop producing – or at least not produce beyond their basic needs – thereby threatening national and international food security. We believe that smallholder farmers can increase their incomes substantially if they process and add value to their produce to increase their competitiveness in an increasingly competitive environment. One of the main reasons why farmers do not fully benefit from their produce is that extension services providers currently focus on production agriculture. They are not sufficiently trained to provide advice beyond production. However, we are not sure how the training can be achieved.

To this extent we, together with our partner universities, have recently embarked on a needs assessment process to explore ways of ensuring that extension services have sufficient capacity in terms of knowledge and skills to provide advice covering the entire value chain. Specifically, the objectives of the survey are to determine the following: the type of training needed for an extension service to provide advice beyond production, the level at which the training should be provided (e.g., in-service short courses or degree programs), the type and number of staff that
would require this kind of training, and the preferred mode of delivery (full-time, part-time, distance learning, etc.) for such training.

Preliminary indications are that employers prefer generalists rather than specialists. They argue that agriculture in SSA is composed of smallholder farmers engaged in a wide range of production, with very little specialization. They therefore want graduates who can advise farmers on a broad range of issues: they want a graduate who can advise farmers on production in all its forms; they want the graduate to advise farmers on value addition and marketing; they want an extension and communication expert; they want the graduate to develop farmer institutions; etc. We can already begin to see a challenge in this in terms of the curricula. How much of this can go into one curriculum? How much can an individual master in terms of knowledge and skills along the agricultural value chain?

Other indications are that employers are not altogether happy with full-time programs that take staff away from their work places for long periods of time. We are therefore exploring options for part-time and distance learning programs. We believe that such options would broaden access to university education and allow field practitioners to learn while they work.

Other challenges

Challenges abound in running an innovative program, and some of the ones we have experienced in the SAFE programs are discussed below.

a) Lack of qualified staff
Most of the universities involved in the SAFE programs are experiencing a critical shortage of qualified and experienced teaching staff in the area of agricultural extension. Apart from an actual shortage of staff, the teaching staffs generally lack the experience necessary to teach practical programs because they themselves are products of theory-based programs, and most have been recruited immediately after graduating. During a recent discussion with the Dean of the Faculty of Agriculture at Makerere, he questioned how we were going to improve the implementation of the practical aspects of the program and cited the example of Animal Science teachers who do not know how to milk a cow. Indeed, although we believe we are running strong and practically oriented programs, implementation has been quite difficult. It is therefore necessary to invest in retraining the teaching staff at agricultural education institutions so that the graduates will have the desired impact in the field.

b) Lack of resources
Most universities lack sufficient resources to run resource-intensive programs on a sustainable basis. It has therefore been difficult for SAFE to disengage from partner institutions so as to be able to use its limited resources to create new programs.

c) Poor rural infrastructure
Infrastructure is a serious problem in countries such as Ethiopia. Because of the poor infrastructure, field supervision of students presents the biggest single challenge of running practical programs. Both staff and transportation resources are strained because transportation is difficult at best and accommodations in the countryside are poor.
Conclusion

Universities need to expand life-long learning programs as new needs keep emerging. For this to happen, partnerships between advisory services and universities need to be established, nurtured and strengthened so that universities are kept informed of immerging needs. The experience from SAFE has shown that universities can respond to well articulated demands – contrary to the ivory tower phenomenon which usually characterizes institutions of higher learning. As Haug (1999) said, the strengthening of human capital and the production of knowledge are perhaps the most important elements in agricultural development strategies.

References


