



Report on Sasakawa Africa Fund for Extension Education (SAFE)



Sasakawa Africa Association

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List of Acronyms

APEC	Agro-Processing Enterprise Center
B.Sc.	Bachelor of Science
DADUS	District Agricultural Development Units
DDC	Demand Driven Curriculum
EAs	Extension Agents
EC	Enterprise Center
ICT	Information Communication Technology
KAC	Kwadaso Agricultural College
KNUST	Kwame Nkrumah University of Sciences and Technology
M.Sc.	Master of Science
MAAIF	Ministry of Agriculture, Animal Industry and Fisheries
MoFA	Ministry of Food and Agriculture
MOU	Memorandum of understanding
NGOs	Non-Governmental Organizations
NUC	National University Commission
Ph.D.	Doctor of Philosophy
SAA	Sasakawa Africa Association
SAFE	Sasakawa Africa Fund for Extension Education
SDDC	SAFE Demand Driven Curriculum
SEPs	Supervised Enterprise Projects
SG2000	Sasakawa Global 2000
SSA	sub-Saharan Africa
UCC	University of Cape Coast
WB	World Bank

Executive summary

The Sasakawa Africa Fund for Extension Education (SAFE) was established in 1991 by Sasakawa Africa Association (SAA) with the aim of upgrading the knowledge and technical skills of mid-career extension workers in sub-Saharan Africa. SAA realized at the very beginning of the operation of its Sasakawa Global 2000 agricultural interventions in Africa that agricultural extension staff need professional upgrading. It was observed that extension staff are not adequately equipped to drive the transformation of agriculture within the rapidly changing environment. Moreover, farmers' demands became more and more complex and called for the existence of well qualified extension professionals.

SAA's first idea was to establish a Zamorano-type of agricultural school (Honduras) in Ghana to address the issue of upgrading the knowledge and technical skills of extension agents (EAs). The idea was dropped because the cost of establishing such a school was too expensive. The second idea was to grant individual scholarships which was not seen as cost-effective.

The final decision was therefore made to work closely with selected African Universities and Agricultural Colleges to develop a practical, demand-driven curriculum to locally train EAs. Training in Africa will be cost-effective and will reach out a greater number of candidates. Three universities were approached in Ghana: Kwame Nkrumah University of Sciences and Technology (KNUST), University of Cape Coast (UCC) and University of Ghana. KNUST and University of Ghana declined SAA's request. UCC responded favorably and the first mid-career SAFE training program was developed and launched in 1993 in Ghana. The program has gradually spread to eleven (11) countries and implemented by twenty-seven (27) Universities and two (2) Agricultural Colleges. The prevailing mode of curriculum delivery in the early years of program implementation was the traditional face-to-face.

The face-to-face mode of delivery has proven to be too constraining for candidates who could not leave their jobs for a long period of time. Female candidates with familial responsibilities cannot afford to be continuously on campus for the long-required period (2 to 3 years). Employers were not keen to release their staff for a long period as well. All these reasons have forced the training institutions to adapt the initial program in order to respond to new demands from end users. As a result, flexible modes of courses delivery were adopted and the program was open to High School graduates as well.

The SAFE program has recorded notable achievements since its inception. It has produced qualified extension agents who are now contributing to the development of agriculture in their respective countries. It has contributed to improve the institutional delivery capacity of participating institutions through the provision of teaching equipment and capacity building of lecturers in their relevant fields (seminars, workshops, scholarships, professional exchanges, etc.). Students' field level projects (Supervised Enterprise Projects (SEPs) have contributed to improve the livelihoods of rural communities. The experiential nature of the curriculum has positively impacted the teaching method of lecturers. In some countries, the full fledged **B.Sc. curriculum in Agricultural Extension** was initiated by SAFE. The program has also established alumni associations with the aim of fostering network and experience sharing amongst graduates.

The main challenges faced by the program are the frequent policy changes, staff turnover in the concerned institutions (ministries and training institutions) and inadequate support from employers.

The way forward is to squarely adapt the program to the changing environment of the trainees. The use of e-learning is definitely the way forward in responding to the growing demands as well as ensuring suitable access to education. The need for aggressive fundraising activities cannot be overemphasized. It will go a long to secure the needed financial resources for program sustainability. The program should also engage in informal education through the development of short courses. Engaging youth in agriculture should be another aera of focus as youth is now high in the development agenda of African governments.

Introduction

The Sasakawa Africa Fund for Extension Education (SAFE) was established in 1991 by Sasakawa Africa Association (SAA) with the aim of upgrading the knowledge and technical skills of mid-career extension staff in sub-Saharan Africa. SAA realized at the very beginning of the operation of its Sasakawa Global 2000 agricultural program in Africa that agricultural extension staff needed professional upgrading. It was observed that they were not adequately equipped to drive the transformation of agriculture within the rapidly changing environment. Moreover, farmers' demands became more and more complex and called for the existence of well qualified extension workers.

SAA decided to work closely with African Universities and Agricultural Colleges to develop a practical, demand-driven curriculum to address the issue of human capital in the field of agricultural extension. SAA/Winrock team visited several universities to ascertain their readiness to mount such a tailored made training program. It was found out that most of the visited institutions were doubtful about the ability of the targeted beneficiaries (EAs) to excel in the formal university training system because they were thought to have 'lost track' due to their many years away from school.

Fortunately, the discussions with the Vice Chancellor of University of Cape Coast (Ghana), Prof. S.K. Adjepong, were very positive. He was very excited to try such an unconventional program as a way to pragmatically respond to the felt needs of the society within which the university is based. The first SAFE program was therefore launched in 1993 at the University of Cape Coast (Ghana). This report covered the genesis of the SAFE program, its evolution, achievements and the way forward.

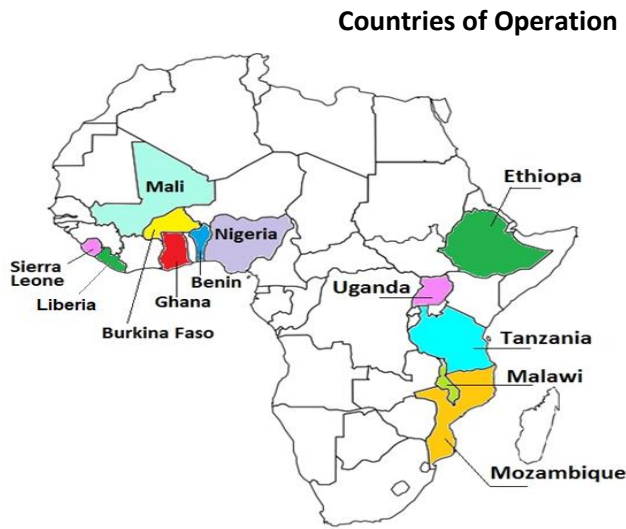


Figure 1. Map of program countries

1. Background

1.1 Genesis of Sasakawa Africa Fund for Extension Education (SAFE)

1.1.1 The rationale for establishing SAFE

In 1986, right at the beginning of the Sasakawa Global 2000 project in Ghana, extension field officers in the country were identified as key players and a critical link in the implementation of the project. However, it was soon recognized that they needed to be re-tooled in order to successfully play this strategic linkage role of making relevant and appropriate information and technologies available to farmers. Programs to provide the extension training for mid-career staff were not immediately available and efforts to create them were compounded by the extreme inflexibility of some Ghanaian universities.

At its meeting in November, 1988, Sasakawa Africa Association (SAA) Board of Directors discussed the best approach to establish a Diploma program in agriculture in Ghana and develop an in-service scholarship program for outstanding Ghanaian extension workers. SAA began to search for models of practical university courses in agricultural extension where extension staff could be trained. The Pan American School of Agriculture model in Zamorano (Honduras) was considered to be replicated in Ghana.

1.1.2 Feasibility study for establishing Zamorano-type of school in Ghana

A feasibility study was conducted in Ghana in June, 1990. The estimated cost (minimum of US\$40 million) for establishing a Zamorano-type school in Ghana was too high. This estimated fund would be needed to build the physical facilities and financial endowment. The Board found the plan too ambitious and expensive and far beyond the resources of SAA.

1.1.3 Proposal for scholarship scheme

In 1991, another proposal dubbed the “Africa Scholarship Scheme,” was developed. This proposal called for a scholarship program for outstanding national extension agents involved in SG 2000 project. It was decided that this scholarship program would be managed by SAA in collaboration with Winrock International Institute for Agricultural Development. The SAA/Winrock proposal, named the “Africa Fellowship Program”, called for 32 scholarships at the B. Sc. level at local universities and 16 M.Sc., and 4 Ph.D. scholarships at foreign universities.

The Africa Fellowship Program was approved by the SAA Board of Directors and the Nippon Foundation to begin in 1992.

The following conditions were agreed upon for successful implementation of the program:

- The prospective SAA scholarship recipients would be Ministry of Agriculture’s extension officers in SG 2000 project countries.
- The program would focus on leadership development of mid-career Ministry of Agriculture personnel, especially those working in agricultural extension.
- Recipients would be granted leave with pay while studying, and that

- The Ministers would commit themselves to policy that allowed scholarship recipients, upon completion of their study, to be eligible for position of increased responsibility once they return.

This set of conditions was also important in helping to ensure that scholarship recipients would return home after completion of their studies. It was also agreed that staff of SG 2000 would play a key role, in collaboration with managers from the ministry, in the selection of scholarship recipients to help ensure that the right people were chosen.

The subsequent step was to identify African Universities (with agricultural extension programs) where mid-career professionals may be placed. The outcome was not very promising. It came to light that no universities in SG 2000 countries at that time offered a B.Sc. (Bachelor of Science) program in agricultural extension. Rather, prospective candidates would have to enroll in already existing general B.Sc. agriculture degree programs.

The first efforts were centered on Ghana's two main universities with faculties of agriculture, namely the University of Ghana at Legon and the Kwame Nkrumah University of Sciences and Technology (KNUST). It was found out that while institutions were very interested in SAA's African Fellowship Program, they showed little flexibility in altering their curricula, or in modifying their admission criteria to take into account the substantial on-the-job experience of the prospective candidates in assessing their credentials for admission. Rather, the standard admission requirements, based on the British system of "A level" passes in mathematics, science and other core courses, would also have to be applied to the mid-career extensionists that SAA wanted to support. The idea of developing a new B. Sc. curriculum was not even discussed at that time. The fellowship program appeared to be an impasse. More admission flexibility for B. Sc. existed at foreign universities, but the cost would be high and the number of recipients would be limited. The prospects of Africa's universities playing a leadership role seemed increasingly difficult. A breakthrough would have to be found.

1.1.4 The role of Winrock International

Winrock International was identified as a key institution that can help to design and implement the SAFE program. Winrock International has a unit comprised of experts in agricultural education. SAA therefore entered into agreement with Winrock to provide the required expertise to implement the program. The first coordinator, Dr. Moses Zinnah, was recruited by Winrock and seconded to the first SAFE program at the University of Cape Coast in Ghana. The coordinator was Winrock's staff and was under Winrock's direct management. He worked under the joint supervision of SAA and Winrock for the overall implementation of the program. As the program grew over time, additional coordinators were recruited. A total of five coordinators have served under the program at different periods due retirement age and voluntarily termination of the contract.

2. Shift from scholarship scheme to institutional capacity building

2.1 Breakthrough with the University of Cape Coast (UCC) in Ghana

SAA strongly believed that universities should open their doors to admit mid-career extension workers, place value on their work experience and factor it into their admission requirements. The existence of an innovative extension education program for mid-career staff will:

- Open the door to leadership positions for mid-career extension workers through advanced training,
- Link extension curricula more closely to the real world of African farmers, and
- Help university faculty to broaden their perspectives by frequent contact with the rapid changes taking place in rural areas.

It was decided to find a flexible training institution which can buy into the idea of developing a need-based curriculum for mid-career extension staff. SAA team visited UCC faculty and administrators in early 1993. The outcome of the discussions was encouraging and positive. The discussions revealed that the Dean of the School of Agriculture and all his senior staff were interested in seeing how UCC could accommodate mature students such as those from the Ministry of Food and Agriculture (MoFA). A courtesy call was also paid to the Vice Chancellor who was very keen on developing more university outreach and continuing education programs.

The pioneer UCC-SAFE B.Sc. agricultural extension degree program therefore started in October, 1993. It was a two-tier program. The basal tier was a 4-year (eight semesters) B.Sc. program for holders of post-secondary school certificate in agriculture or related fields. The top tier was a 2-year (4 semesters) B.Sc. program for holders of post-secondary school diploma in agriculture or related fields.

An internal review of the program revealed that MoFA and the students considered the 4 years required for the post-certificate program too long a time for mid-career staff to be away from their duties. Consequently, a 2-years diploma program in agricultural extension was developed and launched in 1999 at Kwadaso Agricultural College (KAC) for certificate holders. The program was affiliated with UCC which focused on upgrading the diploma holders from KAC to the B.Sc. level and higher. This model represented an attractive incentive as it allowed deserving candidates to move from the bottom of the academic ladder (certificate level) through B.Sc. and M.Sc. (Master of Science) degrees and even to Ph.D. (Doctor of Philosophy).

The main stakeholders, namely MoFA, SAA, Winrock International and UCC, agreed upon the following criteria for selection of candidates:

- Each candidate should be nominated by his/her employer (MoFA).
- Each candidate should have at least 3 years of practical field experience.
- Each candidate should possess a post-secondary high school certificate or diploma in agriculture or related fields.
- At least 25 percent of the intake should be reserved for qualified females to rectify the gender imbalance and insensitivity in agricultural extension in Ghana.

From the very beginning, gender was an important consideration. Women's enrollment in high percentages was required. Twenty five percent (25%) of the total intake was reserved for women. Very few women had the certificate or diploma in agriculture which formed part of the admission requirement. Women with backgrounds in subject areas such as Home Economics, Food Science, and Development Studies were not considered for admission. This turned out to be a huge challenge – since women were not represented equally in the SAFE target population. Some remedial courses were therefore set up to deal with the low qualification issues that women seeking admission faced.

2.2 Active participation of the Ministry of Food and Agriculture (MoFA) of Ghana

One of the key factors that effectively contributed to the realization of the SAFE initiative was the clear vision of Ghanaian Ministry of Food and Agriculture. MoFA strongly believed that it has become imperative to upgrade the knowledge and technical skills of Extension Agents (EAs) who were coping with the complex issues of the rapidly changing agriculture sector in Ghana. MoFA therefore quickly understood and embraced the SAFE initiative as a unique opportunity to move forward in terms of developing its human capital, especially EAs.

MoFA has accepted and adhered to the conditions attached to the implementation of the SAFE program. The Ministry committed itself to the following:

- Release the qualified staff with paid salary to be enrolled in the program;
- Support the field level Supervised Enterprise Projects (SEPs) of the staff;
- Participate in the development, review and revision of the curriculum; and
- Re-absorb the staff upon completion of their studies.

The Ministry showed a keen interest for the success of the program. To that effect, it actively participated in the key implementation activities of the program. Moreover, MoFA has played a leadership role model for other countries that later joined the program. If there were not MoFA and UCC in Ghana, the SAFE program could not have come this far.

3. SAFE: Vision, Mission, Guiding philosophy, Pillars and Curriculum

3.1 Vision

Effective extension delivery systems in sub-Saharan Africa (SSA) that are based on farmer's needs and demands along the entire agricultural value chain, with a special focus on smallholder farmers, most of whom are women.

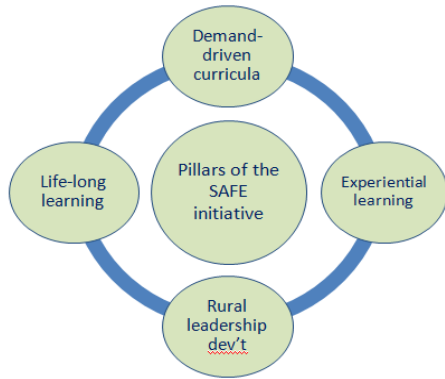
3.2 Mission

Strengthening agricultural education institutions in sub-Saharan Africa to provide demand driven and value chain-oriented training for mid-career agricultural advisory workers.

3.3 Guiding Philosophy

SAFE's guiding principle is that African tertiary educational institutions can offer responsive continuing education opportunities in support of agricultural and rural development. In this way, an increased number of mid-career staff members will have the opportunity to receive quality education locally to upgrade their knowledge and technical and human leadership skills.

3.4 Pillars of the SAFE Initiative



The pillars of the SAFE Initiative are: lifelong learning, demand-driven curricula, student-centered experiential learning and rural leadership development.

Figure 2. Pillars of the SAFE initiative

3.5 Curriculum

3.5.1. Major Steps in the development, review and revision process

A demand driven curriculum can be described as collaborative development and progresses in stages of, planning, preparation, designing, developing, implementing, evaluating, revising and improving. The SAFE curriculum revitalization and transformation approach and process involve all concerned stakeholders including prospective candidates. (Figure 3). The participatory approach of developing the SAFE demand-driven curriculum has greatly contributed to the change of lecturers' perception on curriculum development.

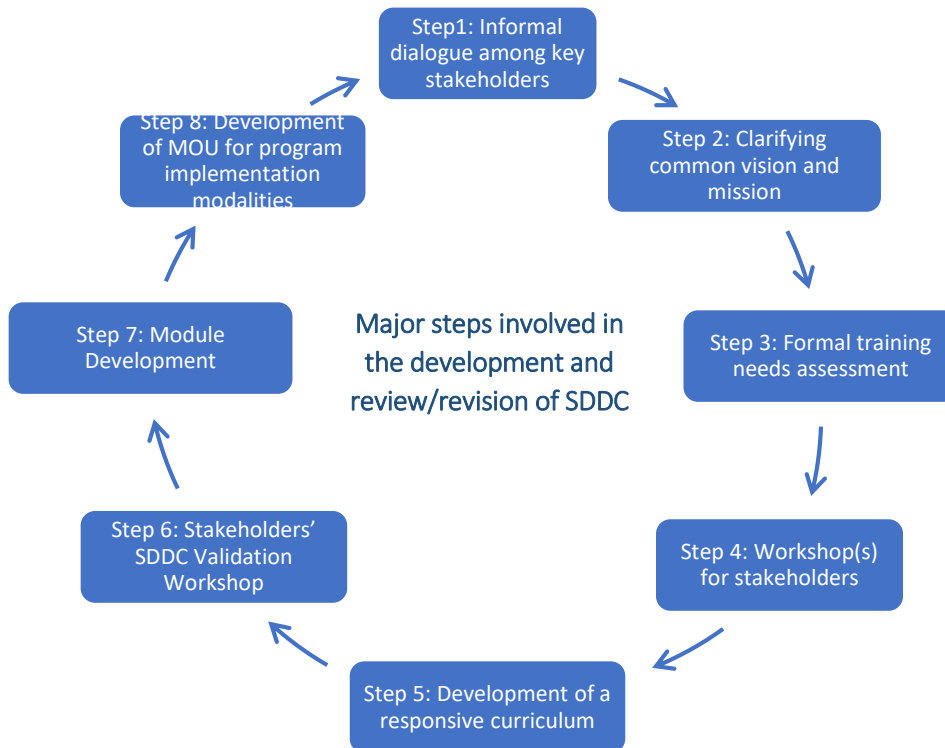


Figure 3. Major steps involved in the SAFE curriculum transformation and development

The SDDC development and revitalization initiative framework is not a blueprint, but a flexible guide to help universities and agricultural colleges in Africa in the process of developing their agricultural education curricula or reforming existing ones. It enables the academia to take into consideration the views of the society at all stages of the development of the curriculum thereby ensuring that the content is responsive.

Step 1: Informal dialogue among key stakeholders

The informal dialogue involving key actors enables them to reflect on their existing agricultural education programs, assess their effectiveness at meeting the training needs of students and the agricultural sector and to determine whether change is necessary.

Step 2: Clarifying common vision and mission

This is a precondition for the development of SDDC. Once a demand has been established, the stakeholders clarify the vision and mission for a mid-career agricultural extension training program and confirm their belief that it (program) is needed.

Step 3: Formal training needs assessment

Formal extension training needs assessment is carried out by the host universities/agricultural colleges, stakeholder organizations, including SAA. An output of this process are factors for successful training and the extension staff's self-perceived training needs and the possible challenges and constraints in launching and sustaining the program.

Step 4: Workshop(s) for stakeholders

A workshop involving key representatives of the stakeholders discusses the findings of the needs assessment and strategies for initiating and sustaining the program. A consensus is then built on the vision for the program, courses and their contents; criteria for the selection and admission of students; and establish program linkages which are vital for resource mobilization and the sustainability of such a demand-driven program.

Step 5: Development of a responsive curriculum or revision of existing one.

The SAFE's checklist for responsive curriculum are that it must 1) be pragmatic but should include acquisition of knowledge and skills in communication, problem-solving, critical thinking and how to learn with others; 2) be closely related to the participants' actual work environment; 3) provide a dynamic interplay between theoretical and practical components; and 4) expose participants to technical thematic areas in addressing food security, value chain agriculture, cross-cutting and emerging issues.

Step 6: Stakeholders' SDDC Validation Workshop

The draft curriculum is presented to stakeholders in a workshop for validation. Inputs from the stakeholders including SAA are harvested to improve the curriculum before it is presented for approval by university and government agency.

Step 7: Module Development

Once the curriculum content is ascertained, the corresponding modules for each course are developed. These would involve the organization of module development workshop for faculty members that would involve in the delivery of the curriculum.

Step 8: Development of MOU for program implementation modalities

This is usually based on a Memorandum of understanding (MOU) between the host universities and agricultural colleges, key stakeholders within context and SAA.

3.5.2. Components of the SAFE Demand Driven Curriculum

3.5.2.1. The Supervised Enterprise Project (SEP)

The Supervised Enterprise Project (SEP) is the innovative component of SDDC whereby students plan and execute independent field-based (off-campus) projects. It is considered as the nerve of the program. The objective of the SEP is to narrow the gap between theory and practice, and to develop students' ability to identify problems and explore practical ways to solve them.

SEPs are organized in two phases. First phase: students go back to their work areas to conduct an assessment of farmers' extension needs and develop an extension project proposal to address those needs. Second phase: Students return to their respective work areas to implement their projects independently over a period of 6-9 months.



Field level SEPs implementation by students in Ethiopia

3.5.2.2. The Enterprise Center (EC)

EC is a venue for demonstration of simple technologies, the training of rural communities, particularly women's groups, and the internships for students towards enterprise development. The purpose of the EC is to transfer knowledge and skills, improve the practical component of the program, improve the value chain components of enterprise and generate income.

Produces from EC are made available for sale, and the income is used to sustain activities of the EC.

The EC is open to the university community, farmers, students, visitors and other interested people.



Enterprise Center at Samanko Agriculture College, Mali

The EC is implemented so far within the campuses of universities and agricultural colleges. The way forward for the EC is to fully integrate it into the Agro-Processing Enterprise Center (APEC) model. APEC will therefore serve as a business incubation center for both students and farmers.

3.6 Uniqueness of SAFE program

The SAFE program is unique in two ways. Firstly, the programs are designed to run as partnerships between employers and training institutions. Employers release their staff members on full salary and pay tuition, and training institutions provide suitable accommodations and teaching staff. In addition, the employers reabsorb the staff members upon completion of their studies. Secondly, the programs are demand-driven. The curricula are streamlined to focus on the needs identified.

4. Program expansion

4.1 Growing demands for the program

The rapid growing demands for the SAFE program came as a surprise. Any institution that came to know about the program immediately expressed its intention to be part of it. We have registered many demands from ministries of agriculture and universities in this regard. Interestingly, the University of Ghana that declined our earlier offer of collaboration has requested to join the group of partner institutions after realizing the rapid spread of the program. The rapid growing of demands was particularly

observed in Ethiopia and Nigeria. Demands were even expressed by countries where SAA does not have operations such as South Africa.

The demand from employers to have in place the SAFE tailored made curriculum has rapidly grown over time. Many countries have realized and acknowledged the need to have a strong extension system with competent EAs capable of driving the transformation of agriculture.

4.2 Responses to demands

The universities and agricultural colleges have positively responded to the demands of employers by developing demand-driven curricula. In turn, employers committed themselves to release their staff and support the key component of the curriculum: The Supervised Enterprise Projects (SEPs). It was unfortunately observed that employers' support was waned in some cases overtime. The national accreditation given to the SAFE program by the National University Commission (NUC) in Nigeria constituted also a positive response to the growing demands in that many universities/agricultural colleges can implement the program.

5. Program adaptation

This section focused on how the program has been adapted based on the changing environment and emerging demands.

5.1 Reasons for adaptation

It was realized that the conventional face to face mode of delivery of the program was not suitable for a certain category of participants, especially female candidates. Mid-career female candidates cannot afford to leave their families to be on campus for a long period. In most cases, their familial responsibilities override their decision and interest to enroll in the program. This partly explained the low level of female enrollment in the program. In general, employers were reluctant to release their staff for an extended period for study away from their jobs. Moreover, individual self-sponsored candidates were not keen to be on campus for an extended period of time and requested a flexible mode of delivery as compared to the conventional and constraining face-to-face mode.

Some policy changes at country level have forced some universities to adapt to the new environment. The decentralization in Uganda was a good example. The Ministry of Agriculture, Animal Industry and Fisheries (MAAIF) was in charge of the training of the extension staff during the early years of the implementation of the SAFE program in the country. MAAIF used to regularly release the staff for training. However, with the new policy of decentralization, extension staff were no more under the mandate of MAAIF. Extension staff were under the direct management of the districts in the country. The districts therefore were directly responsible for the professional development of extension staff. Unfortunately, it was observed that the training of extension staff was not the focus at the district level under the decentralization. Districts did not release their staff for the training as did MAAIF before the decentralization. The absence of mid-career professional candidates has compelled Makerere University to open up the program to high school graduates.

In Ethiopia, bureaus of agriculture asked Universities to use flexible modes of delivery to enable their staff combine work and study, especially during the peak seasons.

The above reasons among others have compelled Universities and Agricultural Colleges to adapt by using flexible modes of delivery. The ultimate aim being to give students the opportunity to:

- Combine work and study;
- Have self-paced/controlled learning; and
- Reduce associated costs of study such as accommodation and travels.

5.2 Adaptation patterns

Several steps are involved in the adaptation process as shown below (*See figure 4*).

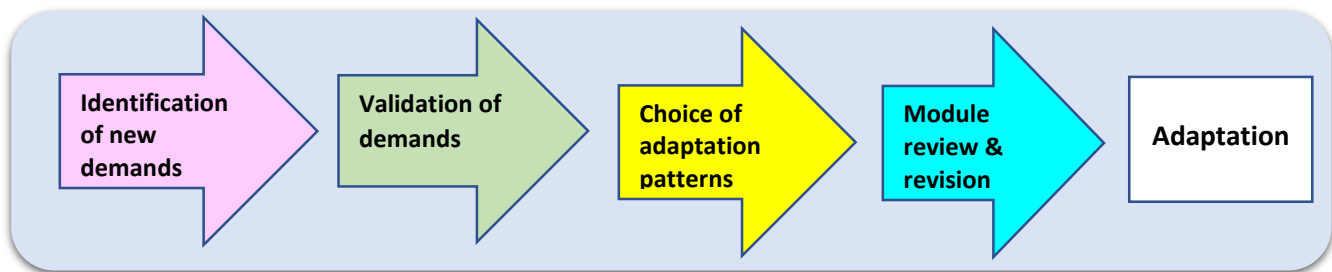


Figure 4. Adaptation Process

The different patterns of adaptation (*See table 1*) of the SAFE program observed so far are as follows:

- Use of mid-career curriculum for High School Graduates
- Mixing experienced Professionals and High School Graduates in the same classroom
- Use of SEPs for non-agricultural disciplines
- Use of Distance and Semi-distance modes of delivery
- Use of Summer and Weekend programs
- Use of Block Teaching during holidays

Table 1. Adaptation patterns at institutions

SN	Universities/Agricultural Colleges and Countries	Original form of SAFE program	Adapted SAFE Programs	Forms of Adaptation	Impact
1	Ghana				
	University of Cape Coast	Mid-Career	Adapted		Use of SEPs in B.Sc. Community Development and Medical Sciences
	Kwadaso Agricultural College	Mid-Career			
2	Ethiopia				
	Haramaya University	Mid-Career			
	Hawasa University		Adapted	Summer Program	
	Bahir Dar University	Mid-Career			
	Mekelle University	Mid-Career			
	Wollo University	Mid-Career			
	Jimma University	Mid-Career			
	Arba Minch University		Adapted	Summer Program	
	Samara University	Mid-Career			
	Jijiga University	Mid-Career			
3	Uganda				
	Makerere University		Adapted	1. Mixture of professionals & High School graduates 2. Distance Mode Program	
4	Tanzania				
	Sokoine University	Mid-career	Adapted	Use of SDDC for High School Graduates	
5	Mali				
	IPR/IFRA, Mali	Mid-career			
	Samanko Centre	Mid-career			
	University of Segou		Adapted	Mixture of professionals & High School graduates	

6	Nigeria				
	Ahmadu Bello	Mid-career	Adapted	Mixture of professionals & High School graduates	
	Bayero University	Mid-career			
	Adamawa State University	Mid-career			
	Illorin University	Mid-career			
	Usmanu Danfodiyo University	Mid-career			
	University of Dutsin-Ma	Mid-career			
	Michael Okpara University	Mid-career	Adapted	Weekend Classes	
	Obafemi Awolowo University	Mid-career	Adapted	e-learning mode	
	Bowen University		Adapted	1. Weekend program for mid-career	Use of SEPs curriculum for High School graduates
	University of Porthacourt		Adapted		Use of SEPs & EC in the regular program for High School graduates
7	Benin				
	University of Abomey-Calavi	Mid-career	Adapted	1. Semi Distance learning program for professionals 2. Use of SDDC for High school graduates	
8	Burkina Faso				
	Universite Nazi Boni		Adapted	Mixture of professionals & High School graduates	
9	Malawi				
	Lilongwe University of Agriculture & Natural Resources		Adapted	1. Distance learning mode 2. Mixture of professionals & High School graduates	Use of SEPs in B.Sc. in Human Nutrition
10	Sierra Leone				
	Njala Univ., Sierra Leone	Mid-career	Adapted	1. Block teaching during holidays	

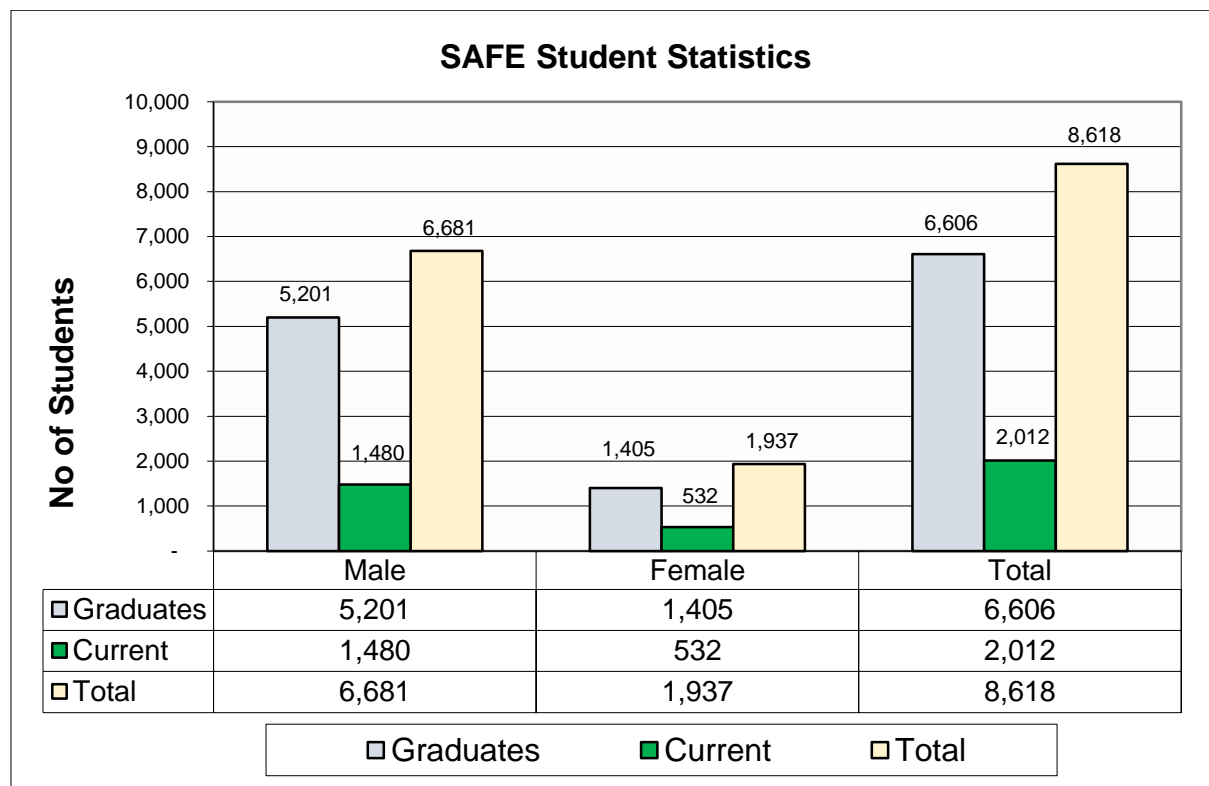
				2. Use of SDDC for High School graduates	
11	Mozambique				
	Catholic Univ., Mozambique	Mid-career	Adapted	1. Use of Block Teaching 2. Use of SDDC for high School Graduates	

6. Program key achievements

6.1 Graduates

Since 1993 when the SAFE program started in the University of Cape Coast, Ghana, the number of graduates has increased steadily over the years. The spread of the program from one country to eleven countries as well as the increased in the number of partner Universities and Agricultural Colleges have contributed immensely to the number of graduates produced by the program. It is important to note that for some countries like Mali, Burkina Faso, Benin and Mozambique, SAFE actually initiated the training of **agricultural extension specialists** in the educational system. Training institutions were not offering courses on agricultural extension as a discipline for it was considered as a common field for all and can be acquired through experience.

Table 2. Students Statistics as of November 2020





Mid-career Graduates from Haramaya University, Ethiopia

Table 3. Statistics of graduates per country and training institutions, as of November 2020

SN	SAFE Program Universities/Colleges and Countries	Graduates		
		Male	Female	Total
1	University of Cape Coast, Ghana (B.Sc.)	483	124	607
2	Kawadaso Agric. College, Ghana (Diploma)	492	97	589
3	Haramaya University, Ethiopia (B.Sc.)	565	88	653
4	Hawasa University, Ethiopia (B.Sc.)	216	56	272
5	Makerere University, Uganda (B.Sc.)	451	207	658
6	Sokoine University, Tanzania (B.Sc.)	825	274	1099
7	IPR/IFRA, Mali (Maîtrise)	248	42	290
8	Samanko Centre, Mali (Dip)	249	112	361
9	Ahmadu Bello University, Nigeria (B.Sc.)	188	28	216
10	Bayero University, Nigeria (B.Sc)	220	11	231
11	University of Abomey-Calavi, Benin (B.Sc.)	182	41	223
12	Nazi Boni University, Burkina Faso (B.Sc.)	119	24	143
13	Lilongwe University, Malawi (B.Sc.)	101	49	150
14	Bahir Dar University, Ethiopia (B.Sc.)	126	52	178
15	Adamawa State University, Nigeria (BSc)	67	12	79
16	Illorin University, Nigeria (B.Sc)	47	10	57
17	Mekele University, Ethiopia (B.Sc.)	185	80	265
18	Wollo University, Ethiopia (B.Sc)	92	37	129
19	Jimma University, Ethiopia (B.Sc)	107	21	128
20	University of Segou, Mali (BSc)	30	4	34
21	Usmanu Danfodiyo University, Nigeria (BSc)	13	1	14
22	Arba Minch University, Ethiopia (BSc)	26	4	30
23	Samara University, Ethiopia (BSc)	28	4	32
24	Jijiga University, Ethiopia (BSc)	46	8	54
	SUB-TOTAL	5,106	1,386	6,492

The variations in terms of the number of graduates produced so far are due to the size of the existing pool of prospective candidates and the number of partner training institutions in a given country. The illustrative example is Ethiopia with the highest number of graduates (1,741 graduates). The high number of graduates in a given country can be also attributed to the fact the program has been running continuously for a long period of time though by only one or two institutions. Ghana is an example in this regard as the oldest running program.

Table 4. SAFE Program Institutions, October 1993 – November 2020

SN	Country	University/Agricultural College	Degree	Since
1	Ghana	University of Cape Coast	B.Sc Degree	1993
2	Ethiopia	Haramaya University	B.Sc Degree	1996
3	Uganda	Makerere University	B.Sc Degree	1997
4	Tanzania	Sokoine University	B.Sc Degree	1998
5	Ghana	Kwadaso Agricultural College	Diploma	1999
6	Mali	IPR/IFRA	Diploma	2003
7	Nigeria	Ahmadu Bello University	B.Sc Degree	2003
8	Benin	University of Abomey Calavi	B.Sc Degree	2004
9	Burkina Faso	University of Bobo Dioulasso	B.Sc Degree	2004
10	Malawi	Lilongwe University	B.Sc Degree	2005
11	Ethiopia	Hawasa University	B.Sc Degree	2006
12	Mali	Samanko Centre	B.Sc Degree	2006
13	Nigeria	Bayero University	B.Sc Degree	2007
14	Ethiopia	Bahir Dar University	B.Sc Degree	2011
15	Nigeria	Adamawa State University	B.Sc Degree	2011
16	Nigeria	University of Illorin	B.Sc Degree	2011
17	Ethiopia	Mekele University	B.Sc Degree	2012
18	Ethiopia	Wollo University	B.Sc Degree	2013
19	Ethiopia	Jimma University	B.Sc Degree	2013
20	Mali	University of Segou	B.Sc Degree	2014
21	Nigeria	Usmanu Danfodiyo University	B.Sc Degree	2014
22	Ethiopia	Jigjiga University	B.Sc Degree	2015
23	Ethiopia	Samara University	B.Sc Degree	2016
24	Ethiopia	Arba Minch University	B.Sc Degree	2016
25	Nigeria	University of Dutsin-Ma	B.Sc Degree	2017
26	Nigeria	Michael Opara University	B.Sc Degree	2018
27	Sierra Leone	Njala University	B.Sc Degree	2019
28	Mozambique	Catholic University, Cuamba	B.Sc Degree	2019
29	Nigeria	University of Ile-Ife	B.Sc Degree	2019

6.2 Development of the extension systems

Tracer studies conducted (Ethiopia, Nigeria, Ghana and Tanzania) showed that the majority of the graduates (about 95%) are back and working within the agricultural extension system at country level. Equipped with new knowledge and technical skills, SAFE products constitute a pool of change agents in the agriculture sector. Some have risen to higher levels of responsibility, especially at decision making level within the extension system and are influencing the policy and the transformation agenda for agricultural extension in their respective countries. Employers of the mid-career students testified that they are satisfied with their performance after graduation. Graduates are contributing to the development of the extension systems at various levels of responsibility.

6.3 Universities contribute to the agricultural development of rural communities

The Supervised Enterprise Projects (SEPs) are the nerve of the programs. The advantages of SEPs include providing human resources for community development, technology transfer, mobilization of resources for community development, creation of linkages for community development, assisting the vulnerable in communities, raising agricultural productivity, facilitation of infrastructural development, supporting institutions in the agricultural development process, creation of employment and alleviation of poverty (Annor-Frempong, F., Akeredolu, M. Kante, A (2015) (Annor-Frempong (2013). According to Kanté, A.; Moore, A.; Akeredolu, M.; Edwards, M.; Annor-Frempong, F. & Moriba, S. (2016), SEPs has impacted on the productivity of farmers across the participating countries through improved technology adoption. In addition, SEPs' impact on lecturers, lecturing, curriculum, faculty and university has been significant.

6.4 Capacity building of lecturers

SAFE has contributed to improve the institutional delivery capacity of participating institutions through the provision of teaching equipment and capacity building of lecturers in their relevant fields. Seminars, workshops and professional exchanges were regularly facilitated for lecturers involved in the program. Few strategic scholarships were granted to lecturers to enable them specialize in the of agricultural extension as deemed necessary; extension being the core of the curriculum. Female lecturers were purposively targeted with the aim of helping them to acquire higher degrees and move to higher decision-making levels within the academia.

Table 5. Scholarships for Faculty Members, as of December 2020

Country	Scholarship Recipient University	Degree			Remark
		Ph.D.	M.Sc.	Total	
Tanzania	Sokoine University	-	3	3	
Uganda	Makerere University	-	1	1	
Ethiopia	Haramaya University	4	2	6	
	Hawasa University	3	-	3	
	Bahir Dar University	1	-	1	
Malawi	Lilongwe University	-	2	2	
Nigeria	Bayero University	1	1	2	
	Adamawa State University	1	-	1	

	Ahmadu Bello University	-	1	1	
Benin	University of Abomey Calavi	-	4	4	
Burkina Faso	Nazi Boni University	1	-	1	
Mali	IPR/IFRA	1	2	3	
	Samanko Agric. College	1	-	1	
Ghana	University of Cape Coast	-	2	2	
Total		13	18	31	

6.5 Scholarships for Extension Agents

A number of individual scholarships were made available for outstanding Extension Agents (EAs) involved in SAA field operations. Those scholarships were awarded as incentives as well as a recognition of EAs' hard work in pushing the transformation of agriculture at farmers' level.

Table 6. Scholarships for extension agents, as of November 2020

SN	Country	Degree				Total
		PhD	MSc	BSc	Diploma	
1	Tanzania	1		6		7
2	Uganda			3		3
3	Mozambique		1	5	1	7
4	Ethiopia		8			8
5	Malawi			2	4	6
6	Nigeria		1	9		10
7	Benin	1		1		2
8	Togo		1	3		4
9	Burkina Faso			2		2
10	Mali		2	1		3
11	Guinea		1			1
12	Ghana	1	27	1	1	30
	Total	3	41	33	6	83

SAA has sponsored 31 lecturers and 83 extension agents across countries. The table below shows the statistics across twelve (12) countries.

Table 7. Scholarship beneficiaries across countries, as of November 2020

SN	Country	PhD	MSc	BSc	Diploma	Total
1	Tanzania	1	3	6		10
2	Uganda		1	3		4
3	Mozambique		1	5	1	7
4	Ethiopia	8	11			19
5	Malawi		2	2	4	8
6	Nigeria	2	3	9		14
7	Benin	1	4	1		6
8	Togo		1	3		4

9	Burkina Faso		1	2		3
10	Mali	1	4	1		6
11	Guinea		1			1
12	Ghana	1	29	1	1	32
	Total	14	61	33	6	114

It is worth to mention the Christopher Dowsell scholarship scheme within the context of training women in agriculture. The late Christopher Dowsell was associated with SAA right from the beginning and served as Dr. Norman Borlaug's assistant and subsequently became SAA's Executive Director-Program. His family decided to remember him through the establishment of a scholarship scheme targeting women in agriculture. He was very keen and passionate to see women excel in the field of agriculture. The scheme is managed by Winrock International. SAA contributed to the scheme as well.

Table 8. Christopher Dowsell Scholarships by country and degree program, as of November 2020

SN	Country	Degree	No of Graduated Students	No of ongoing Students	Total scholars
1	Benin	BSc	-	2	2
2	Ethiopia	BSc	1	8	9
3	Nigeria	BSc	11	12	23
4	Mali	BSc	6	11	17
		Diploma	20	7	27
5	Tanzania	BSc	3	8	11
	Total		41	48	89

7. Alumni Association

7.1 Rationale and role

The rationale of establishing the Alumni Association was to provide a relevant platform for graduates to:

- Share experiences;
- Exchange ideas on issues pertaining to the transformation of agriculture and rural development;
- Form and nurture a coherent and influential group in the decision-making process; and
- Coordinate their actions as SAA's ambassadors in their respective countries.

The first SAFE Alumni Association was established in 2002 in Ghana. The Alumni Associations were established in all program operating countries, (except Mozambique and Sierra Leone with relatively new programs).

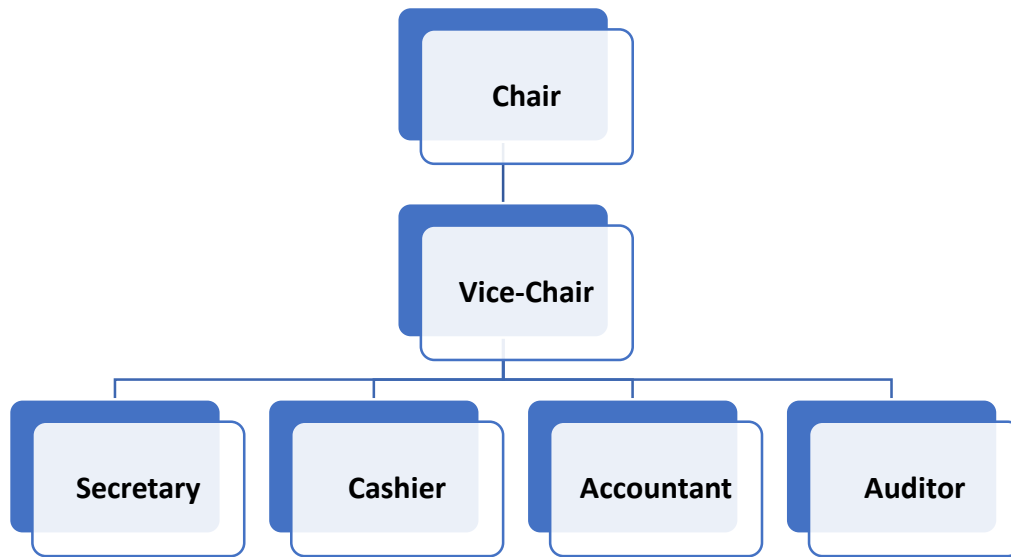


Figure 5. Structure of Alumni Association

7.2 Achievements

The Alumni Associations have helped to facilitate and strengthen networks among SAFE graduates leading to the formation of strong groups of professionals. For example, in Ethiopia, members were very instrumental in establishing a professional society at national level i.e., “Ethiopian Society of Rural Development and Agricultural Extension”. Given their positions of higher responsibilities after graduation, Alumni Association members are involved in policy formulation and implementation in the agriculture sector in their respective countries. As such, they are influencing positively the decision-making process based on the principles of the SAFE initiative.

Alumni association members also are contributing to the effective implementation of the Supervised Enterprise Projects (SEPs). They are fully involved in the supervision of SEPs, making it much easier for lecturers and students. In so doing, they also serve as mentors of the students.

7.3 The way forward

There is a need for the Alumni Associations to become independent in terms of securing resources for their welfare and operation cost. The role of SAA should be reduced to that of mentoring and facilitation. The associations should form professional entities engaging in income generating activities such as extension and advisory services delivery, consultancy, etc. The income generated can be used to take care of their financial needs as associations.

8. Challenges of the SAFE program

8.1 Policy changes

Policy changes often impacted negatively the implementation of the programs. The case of the decentralization policy in Uganda was a good example in this regard (*See section 5*). The districts did not continue to sponsor EAs to enroll in the program as was the case when EAs were under the central ministry.

The same situation was created in the Ministry of Food and Agriculture (MoFA) in Ghana whereby the District Agricultural Development Units (DADUS) under the Local Government System became the authority in charge of managing projects and programs and implementing national agricultural policies and decisions at district level. As a result, extension staff are no more under the central ministry (MoFA). This change has disrupted the usual linkage between MoFA and SAFE partner training institutions (UCC and KAC). UCC and KAC had to establish a new linkage with DADUS for purposes of getting them to support the program.

8.2 Staff turnover

Staff turnover is another challenge faced by partner universities and agricultural colleges. It is important to note that lecturers who are involved in the implementation the SAFE program always received special training by SAFE team on how to implement the program. Unfortunately, those trained lecturers were sometimes removed from their usual departments and posted to different ones. The new lecturers were most often not conversant with the SAFE program and needed training. They had to be trained in order to effectively deliver on the implementation of the program; the implication was additional investment in terms of time and resources.

8.3 Inadequate number of female faculty members

There is an inadequate number of female faculty members in most of SAFE partner training institutions. The table below shows the discrepancy in numbers between male and female faculty members in some SAFE partner universities in Ethiopia. At the University of Segou (Faculty of Agriculture) in Mali, there are only three (3) female lecturers out of thirty (30).

Table 9. Proportion of male and female faculty members in some SAFE partner universities in Ethiopia, as of November 2020

Universities (Ethiopia)	No of Lecturers		
	Male	Female	TOTAL
Mekelle University	17	13	30
Arba Minch University	17	9	26
Bahir Dar University	13	3	16
Haramaya University	29	12	41
Jigjiga University	19	5	24
Sub Total	95	42	137
Percentage	69%	31%	100%

8.4 Low level of female intake

The expectation of SAA right at the beginning of the SAFE program was to see a significant female enrollment so as to have a critical mass of well trained and qualified female extension agents. It was agreed that 25% of the total intake should be allocated to female candidates. Unfortunately, it has been difficult to reach this quota since the inception of the program.

The extension system of countries has very low female composition which directly affects the number of prospective female applicants into the program. The admission requirements with compulsory credits in five subjects (5 credits) including English, Mathematics and Chemistry is also a contributing factor to low female enrollment in the program. It is always difficult for female candidates to retake the qualifying exams to make up for their credit deficiencies due to family responsibilities. So far in the program, the following measures were implemented to improve female participation in the program:

- Encouraged Universities to implement affirmative actions during admission.
- Widened the admission requirement base to include Home Economics, Food Science and Nutrition where there are more women.
- Sought for scholarships for women in the program from e.g., the Ford Foundation Scholarship through Winrock International and the Chris Dowswell Scholarship.
- Organized inclusive gender workshops for Faculty members and employers.

The below table shows the proportion of male and female beneficiaries. Only 22% of women were reached out by the program.

Table 10. Proportion of male and female students, as of November 2020

Total beneficiaries: Percentage (by Sex)			
	Males	Females	Total
Number of students	6,681	1,937	8,618
Percentage	78%	22%	100%

8.5 Inadequate support from employers

As part of their efforts to create a conducive environment for their staff, employers commit themselves to support them during their studies. As a rule, mid-career students return to their work places to conduct their Supervised Enterprise Projects (SEPs). It is expected that their employers fully support the implementation of the SEPs. The support mainly includes the provision of needed resources such as inputs, logistics, financing, etc.

Unfortunately, it was noted that the level of employers' support has been gradually declining over the years in some cases. The waning support can be partly attributed to the competing demands within the work places of mid-career students. It is therefore important to constantly re-engage with employers so as to correct the situation.

8.6 Donor's reluctance to fund Tertiary Education

The establishment of the SAFE program (1991) coincided with the period during which the focus of donor community was on investing in basic education rather than higher education. Universities terribly suffered from this neglect of donor community. The newly established SAFE program was presented to the World Bank several times with the hope that the World Bank would buy in but unsuccessfully. The focus at that time was on basic education at WB. Hopefully, the perspective of donor community is changing in this regard and efforts should be made towards attracting more donors to invest in tertiary education, including SAFE.

9. Lessons learned

Interesting and useful lessons were learned which will guide the future direction of SAFE.

9.1 Lessons learned from stakeholders

The important lessons learned are as follows:

- Employers of mid-career students, development organizations, and resource persons from outside universities and agricultural colleges can influence the design of the curricula.
- Universities/Agricultural Colleges can respond to well-articulated demands, despite the “ivory tower” stigma that characterizes institutions of higher learning.
- Mid-career extension professionals represent underutilized sources of information and catalysts for rural development.
- Field experience can enrich curricula and teaching at universities and agricultural colleges by providing invaluable opportunities for faculty members and students to learn from real-life situations, and bring new benefits to farmers.
- The experience of the SAFE initiative clearly indicates that the interest, enthusiasm and commitment of stakeholders can be assured if they are part of the decision-making process. Farmers, officials of concerned Ministries, Non-Governmental Organizations (NGOs), extension professionals, prospective students, and university administrators and lecturers should all participate in making decisions on matters affecting the programs.
- A strong and committed leadership with a clear vision is the major condition for starting and successfully implementing an innovative program.
- Training institutions need to be flexible in the design of the curriculum and admission criteria into university programs.
- The demand-driven nature of the curricula plays an important role in the success of the programs. The curricula address the true needs and problems of extension staff members and farming communities.
- The development and reform of the curricula is participatory and involves all stakeholders. This gives a great sense of ownership among stakeholders.
- The SAFE initiative has demonstrated the importance of forging partnerships within the universities themselves (i.e., across faculties and departments) and with other universities, NGOs

and government ministries, and with the private sector. One of the most important ingredients for the start-up and sustainability of any innovative program is partnership with other organizations that are concerned about the same problems and committed to the shared vision and mission.

- Despite the doubts expressed by a segment of academia about the ability of mid-career professionals to excel in their studies, they have (mid-career professionals) have demonstrated the contrary. All of them have successfully completed their studies. Many of them completed with first class. Many have even successfully completed further higher degrees (M.Sc. and Ph.D.). The example of a Ghanaian female who started from diploma level and moved up to M.Sc. and Ph.D. levels is illustrative.

9.2 Enrichment of curricula and teaching

Lecturers associated with the SAFE programs now have a greater exposure to the farming communities. The supervision of students' field projects has provided them with the opportunity to interact with farmers and field extension agents. The practical component of the program has enriched curricula and provided invaluable opportunities for faculty members and students to learn from real life situations and bring new benefits to farmers.

The practical field orientation and demand-driven nature of the program have greatly transformed the teaching approach of participating universities and agricultural colleges. Participating universities and colleges have learnt to become more flexible in the design of their training programs by using participatory approach.

9.3 Reasons for success

1. The strong commitment of the leadership at UCC greatly contributed to the success of the program. The then Vice-Chancellor, Prof. S. K. Adjepong, the Dean of the School of Agriculture, lecturers, and the Academic Board of the University provided strong leadership in establishing the SAFE program. Prof. Adjepong was personally convinced of the need to offer a responsive training program for the staff of MoFA. He regularly visited the students during the execution of their field projects (SEPs).
2. The strong partnership between the main stakeholders was also a key factor in the success of program in Ghana. SAA, Winrock International, MoFA and UCC share the same vision and are committed to the success of the program.
3. Right from the beginning there was a common understanding of stakeholders' respective roles in the process and they played these roles well. Winrock International seconded an expert in Agricultural Extension to the SAFE program at UCC. MoFA accepted to release its staff with full salary and to reabsorb them upon completion of their studies. This was a very attractive and important incentive which contributed to the success of the program. Sasakawa Africa Association agreed to provide the initial resources for the program, including supporting the staff seconded from Winrock International to lead the start-up of the program.
4. The demand-driven nature of the curriculum also played an important role in the success of the program. The curriculum addresses the true needs and problems of extension workers and

farming communities. The development of the curriculum was participatory and involved all stakeholders. This gave a great sense of ownership of the program by the stakeholders.

5. The students in the program have always been truly enthusiastic, keen to learn and hard working in their studies.
6. Finally, lecturers involved in the program have shown a strong commitment towards its success.

10. The way forward

10.1 Action points derived from the recommendations of case studies and EC evaluation

Recommendations and action points for SAFE program

Recommendations	Action points
Put in place adequate measures to ring-fence SEP supervision funds.	<ul style="list-style-type: none"> ➤ Link students with donors (NGOs, development agencies, private sector, research centers, etc.) ➤ Introduce a student placement program to assist students identify potential organizations for placement/internship.
Create continuous sensitization and extensive awareness amongst key stakeholders.	<ul style="list-style-type: none"> ➤ Organize awareness workshops and seminars for key stakeholders.
Most students' SEPs focus on production agriculture, which is the lower level of the value chain.	<ul style="list-style-type: none"> ➤ Systematically conduct trainings on value chain oriented SEPs. ➤ Ensure that the topics of SEPs cover the entire value chain.
Universities/agricultural Colleges should emphasize on key aspects of market-oriented agriculture in the curriculum, as this will enable students to assist farmers to produce for the market and engage in collective marketing.	<ul style="list-style-type: none"> ➤ Periodically review and revise the curriculum.
The current large student numbers enrolled with Open and Distance Learning (ODL) makes the implementation of the SEPs difficult.	<ul style="list-style-type: none"> ➤ Consider increasing the number of lecturers to ensure effective implementation of SEPs.
New educational policy brought new challenges to the mid-career program in terms of duration and new demands on required competencies.	<ul style="list-style-type: none"> ➤ SAFE and implementing universities/agricultural colleges should review the existing curricula to be flexible enough to fit in the new educational policy/roadmap and demands from stakeholders.
One student cannot address all the issues along a value chain of an enterprise.	<ul style="list-style-type: none"> ➤ SEPs should be conducted by a group of students to ensure that all segments of commodity value chain are properly addressed. ➤ Engage a group of students to address specific segments of value chain components of a given enterprise.
Promote gender balance in the programs.	<ul style="list-style-type: none"> ➤ Strict implementation of a quota for the admission of female candidates.

	<ul style="list-style-type: none"> ➤ Establish strong partnerships for purposes of securing scholarships for female candidates.
Mapping of actors of the value chains is crucial to set up a platform and strengthen the synergy of action.	<ul style="list-style-type: none"> ➤ Engage alumni associations in mapping of actors of value chains.
Exposed students to SG-2000 field level models along commodity value chains.	<ul style="list-style-type: none"> ➤ Conduct trainings on SAA field level models. ➤ Support students/interns to conduct their SEPs on SAA field level technologies.
Expand the mid-career training program to other tertiary institutions.	<ul style="list-style-type: none"> ➤ Encourage interested institutions to use their own resources to establish the SAFE program.

Recommendations and action points for Enterprise Center

Recommendations	Action points
Establish and strengthen enterprise centers.	<ul style="list-style-type: none"> ➤ Develop joint proposals with partners to secure more funding. ➤ Establish good downward and upward market linkages.
Develop a manual of procedures for the implementation and management of ECs.	<ul style="list-style-type: none"> ➤ Widely distribute the already developed manual on EC.
Capacity development of actors involved in the running of the ECs.	<ul style="list-style-type: none"> ➤ Organize trainings on EC development.
Ensure the sustainability of activities at ECs.	<ul style="list-style-type: none"> ➤ Carry out a feasibility study of any business plan. ➤ Engage private sectors in EC activities. ➤ Carry out regular and timely evaluation and monitoring.

10.2 Proactive engagement with stakeholders: research institutes, public/private sectors, development agencies.

Stakeholders and students duly recognized that the SAFE program is an important initiative that is contributing to the development of African agriculture. It is thus paramount to boldly engage with key stakeholders in the agriculture sector. There is a need to establish and nurture strong strategic partnerships with research institutes, public/private sectors and development agencies in order to enhance and add value to SAFE's interventions. The existence of such partnerships will expose students to other valuable sources of knowledge and practice outside the boundaries of the university.

10.3 Admission of High School graduates: Implications for SEPs implementation

Some partner training institutions have admitted High School graduates into the program as a way of responding to demands emanated from a new audience. This move became necessary because SAFE needed to be flexible and ready to adjust itself in order to continue to be relevant to the society. In this regard, the admission of High School graduates into the program should be encouraged and supported.

Whereas the admission of High School graduates brought a new perspective and positive dynamics between young and adult learners, it has some implications in terms of resources needed for the

implementation of SEPs. Unlike their counterpart mid-career professionals who enjoy their employers' support for the conduct of SEPs, High School graduates do not have such support because they are not employed. This lack of employers' support represents a serious challenge in the effective implementation of SEPs. Developing partnerships with relevant organizations and the private sector is one way forward to address this issue. High School graduates can be attached to those organizations to conduct their SEPs.

10.4 Use of various modes of delivery (face-to-face, e-learning, distance mode, summer courses, etc.)

The initial mode of program delivery was the traditional classroom face-to-face. Partner training institutions should demonstrate a significant level of flexibility to accommodate new demands by using alternative modes of delivery. E-learning, distance and semi-distance modes, summer courses, week-end courses, block teaching, blended learning, etc. should be used as much as possible. This is the way forward in order to respond to the growing demands for the program and the rapidly changing environment.

10.5 Expanding the scope of intervention (Development of short courses)

The SAFE program has been focusing on formal education so far. The program should seriously consider to engage in informal trainings as well. Short courses on topical issues can be developed by partner universities and agricultural colleges to offer to potential users. Broadening the scope and the nature of the SAFE program will go a long way to respond to the specific demands of the society, and thereby reach out a greater number of end users.

10.6 Funding

The program depends exclusively on Nippon Foundation's funding, except few cost-sharing cases (FMARD funding of Othman Dan Fodio university, Adamawa State University in Nigeria). It is imperative to proactively engage in fund raising activities. HRD should be involved in proposal writing in this regard along with other themes.

11. Conclusion

The early days of the SAFE initiative were a true struggle. One of the major difficulties encountered in the process of establishing SAFE was the inflexibility of universities. These institutions had been preoccupied with upholding "Academic Rigor", rather than responding to the real needs of the society within which they were based. There were doubts about the ability of mid-career staff to excel in the formal university training system because they were thought to have 'lost track' due to their many years away from school. It was indeed a frustrating process to get the program recognized and accepted. Everything that was done had to be piloted and proven. Almost everything, including the training approach and the entire curriculum, was new.

The SAFE demand-driven curriculum (SDDC) is the significant innovation in the field of agricultural extension formal education at SAFE partner training institutions. Its foundation emanated from the felt needs of all stakeholders, including farmers, ministries of agriculture, universities/agricultural colleges, prospective trainees and other relevant end users. The SAFE program is well accepted as an important and practical way of addressing the crucial issue of human capital development in the agriculture sector.

It is crucial that the program continue to be responsive to the changing environment and demands. The various adaptation forms of the program that took place over time as responses to new demands underline the fact that the environment of the trainees is dynamic calls for pragmatic adjustment. In addition to some of the points suggested in this report as the way forward, the effective integration of SAA and SAFE remains paramount. A separate guideline for SAA/SAFE integration is being developed based on the outcomes of various meetings.

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