A CASE STUDY ON SASAKAWA AFRICA FUND FOR EXTENSION EDUCATION PROGRAMMES IN GHANA

By

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Executive Summary

The Sasakawa Africa Association (SAA), a non-governmental organization registered in Geneva, Switzerland, launched the Sasakawa Africa Fund for Extension Education (SAFE) in 1992. The main aims of SAFE are to: (1) bring African agricultural universities and colleges much more squarely into the agricultural and rural development process through the creation of new innovative continuing education programmes, and (2) expand and strengthen the skills of frontline agricultural and rural development workers to serve the needs of smallholder farm families.

In 1993, SAA in collaboration with University of Cape Coast (UCC), the Ministry of Food and Agriculture (MoFA) and Winrock International launched the maiden innovative B.Sc. Agricultural Extension Degree programme in Ghana under the SAFE initiative. In 1999 the Diploma in Agricultural Extension was started at Kwadaso Agricultural College, Kumasi, Ghana under the supervision of University of Cape Coast.

The main activities under the Terms of Reference (TORs), which determined the duties of the consultants for the case study, were to:

- Conduct a tracer study of the graduates of the SAFE programmes in Ghana,
- Identify, analyze and elaborate key components of the SAFE programmes in Ghana,
- Identify and assess key impacts of the programmes, and
- Provide recommendations for developing and implementing sustainable SAFE-type programmes.

The consultants devised a multi-method strategy (interviews, document reviews, and questionnaire) to generate data and information from graduates, students, staff and officials of the implementing institutions, employers, and stakeholders for the case study.

- Questionnaires and interview schedules were designed to collect data from graduates, staff of the Sasakawa Guest Centre (restaurant, conference hall and chalets), the Department of Agricultural Economics and Extension, School of Agriculture, University of Cape Coast (UCC), Supervised Enterprise Projects (SEPs) Coordinator, UCC, staff at the Technology Village, UCC, Kwadaso Agricultural College, Kumasi and SAFE Alumni Association, Ghana.

- A total of 275 questionnaires were duly completed and returned by the graduates of the SAFE programmes in Ghana.

- Additionally, a documentation review was done on statements of accounts for the Sasakawa Guest Centre at UCC (chalets, conference hall and restaurant), Department of Agricultural Economics and Extension, UCC, Technology Village at UCC, SEPs, UCC, annual reports on Technology Village, UCC, long range (strategic) plan for the Technology Village, UCC, proceedings of the second and third biennial conferences of the SAFE Alumni Association, Ghana and the Ghana universal salary structure for the civil service, September, 2006. The vision and mission statements of the Technology Village, UCC, SAFE Alumni Association of Ghana, SEPs concept were also reviewed.
A. Major Findings

I. Tracer Study of SAFE Graduates in Ghana

1. The SAFE programmes (B.Sc. and Diploma Agricultural Extension Programmes) in Ghana has produced a critical mass of 576 highly trained and qualified agricultural extension agents who have been promoted professionally to various levels in the extension system to improve agricultural extension delivery in Ghana and parts of Africa.

- About 80% of the graduates are males and 20% females.

- Sixty (60) students are graduated from the Bachelor and Diploma programmes of SAFE each year in Ghana.

- A total of 51 First Class (21 for B.Sc. and 30 for Diploma) and 521 Second Class (246 for B.Sc. and 275 for Diploma) graduates have been produced since the start of the SAFE programme in Ghana in 1993.

2. Overall, the graduates have been promoted professionally, attained higher supervisory positions and received increments in salaries and other benefits.

- Over 230 graduates (40%) have been promoted from the technical to the sub-professional and professional class categories despite the promotional bottlenecks in civil service.

- From the mere lower Technical positions which most the graduates occupied before enrolment in the SAFE programmes, the graduates are currently performing key responsibilities such as supervisors of projects, assuming the role of team leaders, resource persons, trainer of trainers and liaison officers with other development partners, who work with the Ministry of Food and Agriculture (MOFA).

- Currently, 76 (13 %) of the graduates are directors, managers and officers at the regional level.

- There have been two to six-fold increments in salaries of graduates since graduation. The annual basic income of majority of the B.Sc. graduates ranged from US$4,399.64 to US$5,574.55 and that of the Diploma graduates ranged between US$3,273.75 and US$4,147.99.

3. A majority (94%) of the graduates of the SAFE programmes work with MOFA. Only 33 (6%) of the 543 who were sponsored by MOFA have left to work with private sector and other development partners.

4. A significant few (20%) of the graduates have progressed academically. Approximately, 43% of the 113 graduates who have progressed academically have continued from the Diploma to B.Sc. programme. The rest have pursued/pursuing post-graduate studies, including 3 who are now completing their Ph.D. degree.
II. The Sasakawa Centre Complex

The Sasakawa Centre complex comprising the student hostel, offices and Guest Centre (chalets, restaurant, and conference facility) have generated the much needed funds that have been used to support the SAFE programme.

1. The total construction cost for the Sasakawa centre complex was US$361,600.00. Contributions were from Sasakawa Africa Association (US$190,000), University of Cape Coast (US$101,600), USAID (US$50,000) and Ministry of Food and Agriculture, Ghana (US$20,000).

2. An average net profit of US$33,660.18 per year was realised from the Sasakawa Guest Centre (chalets, restaurant, and conference facility) from 2003 to 2006. Over the period, the average running cost was US$ 29,823 per year while the average revenue was US$6,3483.16.

3. Incomes generated from Sasakawa Centre Complex are used to meet the following expenses:
   - Management and supervision of SEPs at UCC,
   - Purchasing of resources for the implementation of the BSc. Agricultural Extension curriculum (SAFE Programme) at UCC,
   - Payment of salaries and bonuses of employees at the Guest Centre, and
   - Supplementing the operational cost of the Department of Agricultural Economics and Extension.

4. The performance of the Sasakawa Guest Centre can be described as less than impressive over the past few years (2004-2006), which could be traced to managerial inefficiencies and low priced food and accommodation charges. The Sasakawa Management Board has put necessary measures in place to ensure sustainability of Sasakawa Guest Centre.

III. The Technology Village

The Technology Village was set up to develop/adapt and demonstrate improved technological innovations that are practical, affordable, and sustainable to students and the general public.

1. US$7,300.00 seed money was used for the initial establishment of the agro-forestry grasscutter, snailery, mushroom and apiary units.

2. Equipment for the agro-processing unit and existing infrastructures were later provided by SG2000 and UCC.

3. The Technology Village has 11 full-time staff.

4. The smooth running of the Technology Village has been greatly hampered by inadequate financial support. However, evidence at the Technology Village shows that the facility has engaged in production and/or processing to generate modest revenue (US$ 2762.31) from relatively small investment of monies (US$5,377.52) in selected non-traditional enterprises between 2003 and 2007.
5. A new strategic plan for the Technology Village has been approved by the School of Agriculture Board at UCC. It is anticipated that it would rejuvenate the Village.

IV. The Supervised Enterprise Projects (SEPs)

The Supervised Enterprise Projects (SEPs) constitute the nerve centre of the SAFE programmes in Ghana. After two semesters of in-residence instruction on campus, students return to their place of employment to undertake action-oriented extension research projects.

1. The SEPs have continued to be problem-focused, hands-on laboratories and extended field-based experiential learning projects.

2. The SAFE programmes in Ghana (UCC and KAC) require approximately US$26,000.00 each year to implement SEP component of the programme. Approximately, US$530.00 is required to supervise a student on SEPs each year.

3. Each student also spends approximately US$1,000.00 on the off-campus SEP. Students finance the projects from personal sources, NGOs, banks, Municipal/District assemblies, beneficiary communities, and the Ministry of Food and Agriculture.

4. A number of cogent strategies that have been proposed will address the challenges and constraints of SEPs at UCC. However, the Diploma programme at KAC would require a lot of assistance from MOFA to be able to supervise the SEP component of the programme.

V. Teaching Staff in SAFE Programmes

1. University of Cape Coast (UCC) has the requisite number of highly qualified and competent staff to teach and supervise students in all aspects of the SAFE programme. A total of 27 academic staff ranging from the Professorial and Lecturer ranks were involved in the smooth running of SAFE at UCC.

2. More staff with the Masters Degree or better will be required to run the KAC Diploma programme to address the peculiar problem of high staff attrition rate due to the very poor conditions of service in the civil service of Ghana where KAC (MOFA) belong.

3. Staff development and generation of revenue are two critical strategies put forward to effectively address the low staff motivation and unattractive conditions of service which are the main challenges to recruitment and retention of academic faculty at UCC.

VI. Female Enrolment

1. The overall ratio of female to male graduates from SAFE programmes in Ghana is 1:4. The ratio of graduates in the B.Sc. programme is 1:5 while that of the Diploma is 1:4.

2. The low female enrolment in the SAFE programmes could be traced to inadequate numbers of eligible females in the pool of Extension Staff in the Ministry of Food and Agriculture.

3. UCC and KAC have a gender sensitive admissions policy.

4. UCC has a remedial programme to upgrade potential students especially females who lack the required passes in sciences to become eligible.
VII. Contributions of the Government of Ghana to the SAFE Programmes

The Government of Ghana (GoG) is the major contributor to the SAFE programme in Ghana.

1. GoG made an initial contribution of US$81,600 towards the construction of Sasakawa Centre complex building.

2. Furthermore, it spends US$491,248.30 towards the payment of annual basic incomes of Ghanaian SAFE students and US$85,243.51 per annum on staff at UCC based staff time equivalent spent on SAFE programme activities. The staff time equivalents spent on SAFE programme related activities are estimated as 39.8% for lecturers and 35.1% for all categories of support staff.

3. Many benefits enjoyed by staff and students are paid by GOG. Such benefits include:
   • Research & book allowance which is currently US$2,303.00 per academic staff at UCC,
   • Vehicle allowance (US$30.72 per staff per month),
   • Duty allowance (15% of annual basic income) and
   • End of service benefit (12.5% of annual basic income).

4. GoG contributes to the US$7,824.55 per year management and administrative costs for SAFE and other programmes in the Department of Agricultural Economics an Extension at UCC.

5. Overall, it is estimated that GoG has contributed US$101,600.00 (for the infrastructural development and donation of equipment) and US$511,016.12 (for salaries and other emoluments of staff and students per annum) for the amount of time spent on SAFE programme activities.

VIII. Participation of Stakeholder in the SAFE Programmes in Ghana

The SAFE programmes in Ghana have received modest support from a wide spectrum of stakeholder-groups.

1. The stakeholder-groups include international organizations, Universities, bilateral agencies, Non Governmental Organizations, parastatal agencies, District Assemblies, Private sector (Farmers), Students, Graduates, Ministries, Departments and Agencies.

2. The nature of participation of other stakeholder-group include design, implementation an evaluation of SAFE curriculum, contribution to admission policies and selection of students into the programme, sponsorship towards the implementation of SEPs and presentations at the sessions in the current issues on agricultural extension and technology course.

3. The full and active participation of all key stakeholders in the SAFE programmes are constrained by few factors which could be surmounted if adequate resources and more focused programmes are drawn to address them.

IX. The SAFE Alumni Association

The SAFE Alumni Association, Ghana was formed in 2002 to strengthen the networks among the SAFE graduates to improve agricultural development.
1. To date, it has held three biennial congresses in Cape Coast and Kumasi with financial support from SAFE management.

2. The Association is governed by a constitution. Affairs of the group are managed from executives from its secretariat at the Kwadaso Agriculture College campus, Kumasi.

3. Approximately, $7,727.54 was spent to organize its biennial congress.

4. An inaugural issue of the Alumni newsletter, “The Extensionist” was produced at a cost of US$512.50.

5. Graduates have not been actively involved in the SAFE Alumni Association and other international or local professional associations. The active membership of the Association stood at 160.

6. The sustainability of the SAFE Alumni Association of Ghana is being threatened by apathy, lack of commitment, and inexperience in organizational skills on the part of the executives and members.

X. **Cost for Funding the Establishment of SAFE- Type B.Sc. Agricultural Extension Programme in Ghana**

It is estimated that it would cost US$1,148,377.63 to fund and set up a SAFE-type B.Sc. Agricultural Extension Programme as the one established at UCC in Ghana. Eighteen major cost centres (components) are included (Table 1).

**Table 1: Major Cost Centres for Funding SAFE-Type B.Sc. Agricultural Extension Programme in Ghana**

<table>
<thead>
<tr>
<th>Description of Cost Item</th>
<th>US$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Affiliation Costs</td>
<td>1000.00</td>
</tr>
<tr>
<td>Sasakawa Hostel (25 Rooms), 8 Offices and a Conference Hall</td>
<td>231,600.00</td>
</tr>
<tr>
<td>Sasakawa Restaurant and Chalets (16 Rooms)</td>
<td>130,000.00</td>
</tr>
<tr>
<td>Classrooms and Laboratories</td>
<td>100,000.00</td>
</tr>
<tr>
<td>*Running costs for Department</td>
<td>947.70</td>
</tr>
<tr>
<td>Equipment/Materials</td>
<td>48,500.00</td>
</tr>
<tr>
<td>Supervised Enterprise Projects</td>
<td>13,393.04</td>
</tr>
<tr>
<td>Technology Village</td>
<td>22,000.00</td>
</tr>
<tr>
<td>Two (2) Vehicles</td>
<td>70,000.00</td>
</tr>
<tr>
<td>Fees for an Average of 30 Ghanaian Students for 2 years</td>
<td>34,980.00</td>
</tr>
<tr>
<td>Fees for Average of 4 Foreign Students for 2 years</td>
<td>43,400.00</td>
</tr>
<tr>
<td>Salaries, benefits and SEP support for 30 students per annum</td>
<td>180,208.61</td>
</tr>
<tr>
<td>*Salaries of Academic Staff (27 Lecturers involved in Teaching and Supervision of SEPs) per annum</td>
<td>73,170.07</td>
</tr>
<tr>
<td>*Benefits of Academic Staff (27 Lecturers involved in Teaching and Supervision of SEPs) per annum</td>
<td>162,100.24</td>
</tr>
<tr>
<td>*Salaries of Supporting staff per annum (24 Administrative, Technicians, Labourers, etc)</td>
<td>12,073.47</td>
</tr>
<tr>
<td>*Benefits of Supporting staff per annum (24 Administrative, Technicians, Labourers, etc)</td>
<td>2,276.96</td>
</tr>
<tr>
<td>Biennial Alumni Congress &amp; Running Cost</td>
<td>7,727.54</td>
</tr>
<tr>
<td>Conferences and Seminars for Lecturers</td>
<td>15,000.00</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>1,148,377.63</td>
</tr>
</tbody>
</table>

Source: Case Study on SAFE Graduates in the University of Cape Coast, December 2007

* Based on estimated percentage of time (39.8% for Lecturers and 35.1% for Supporting Staff) spent on SAFE programme only.

**B. Main Conclusions**

The following represents the main conclusions from the case study.
1. The SAFE initiative in Ghana has been very successful in terms of assisting UCC and KAC to create an innovative continuing education programmes to expand and strengthen the knowledge and skills base of over 500 male and female frontline agricultural and rural development workers, who hitherto could not have continued their education to serve the needs of smallholder farm families in Ghana and other parts of Africa.

2. The SAFE programmes have made invaluable contributions to the two implementing institutions namely UCC and KAC, graduates’ lives and profession, and agricultural/rural development especially in Ghana.

- The implementing institutions have been resourced to develop and offer responsive programmes and play leadership roles in training high quality extensionists in sub-Saharan Africa.
- The tenets of SAFE programmes have greatly influenced the development and implementation of new under-graduate and graduate programmes at University of Cape Coast. For example, the Diploma in Animal Health Programme has adopted the systems approach to agricultural development, SEPs, and current issues in technology and agriculture courses from the SAFE curriculum. Moreover, the M.Sc. Livestock Systems has adopted the systems approach while the current issue course is a major feature of the M.Sc. in NGO Management and Studies programme.
- The livelihoods of graduates have been enhanced since they have improved salaries, benefits and promotions to high positions in their work place.

3. The Sasakawa Centre complex at UCC which was constructed to generate funds for the SAFE programme has been an asset of the SAFE programme. This could be replicated to sustain similar SAFE programmes.

4. The innovativeness of the SEPs of the SAFE programmes in Ghana, in no doubt, would be maintained in view of the strategies put in place to address the challenges and constraints. However, KAC will need assistance to run the Diploma programme successfully.

5. The Technology Village would effectively perform its functions of a teaching-cum-learning centre, a field research laboratory, an outreach/extension and income-generating facility for the University if it is adequately resourced with seed money and effectively managed.

6. The GoG is the major contributor to the SAFE programme in Ghana because it pays very substantial amounts to the running of the two programmes in Ghana. However, not all of the contributions by the GoG are always quantified and duly acknowledged because of the indirect nature of some of the contributions that come mainly through its implementing agencies such as UCC, MoFA and KAC.

7. The measures to address the low female enrolment in the SAFE programme could not lead to any substantial increase in the numbers of females since the absolute numbers of eligible females in the Ministry of Food and Agriculture are woefully small. It will take a lot of efforts for GoG, MoFA and UCC to address this issue.
8. The SAFE Alumni Association could only be sustained if drastic measures such as outlined in the recommendation section are put in place to address the challenges and constraints.

9. At December 2007 prices of goods and services, the annual cost for funding SAFE-type B.Sc. Agricultural Extension Programme (as that of UCC with 18 cost centres) is estimated at approximately US$1.2 million.

C. Major Recommendations

The consultants recommend:

1. The key components of the SAFE programme in Ghana namely the Sasakawa complex, SEPs, Technology Village, SAFE alumni association, and encouraging partnerships with stakeholder-groups should be adopted by SAFE management for future programmes. Moreover, the components should be sustained continuously in the existing programmes by implementing institutions.

2. The UCC and KAC should sustain SEPs by strengthening the involvement of stakeholders through meetings, formalized arrangements (signed MOUs), documentation and promotion using both print and electronic media and mechanisms such as newsletters, T- and polo shirts, and caps. Moreover, successful SEPs should be adopted as learning laboratories for students, farmers and general public.

3. The supporting staff at the Technology Village should be re-trained to become more knowledgeable and skilled in their respective operational units such as snailery, agro-processing and grasscutter farming. Seed money in the form of loan should be sought for operations and expansion of the Village.

4. The female enrolment in SAFE Programme in Ghana can be increased when UCC and KAC, in collaboration with MoFA, aggressively advertise the SAFE Programme to encourage more qualified females to apply.

   • MoFA should strengthen the Women in Agriculture Programme by employing more females, who will work directly with women farmers, women agro-processors, female home-makers and female youth programmes.

   • Motivation, encouragement and sponsorship packages should be instituted to entice women/females to pursue studies in agriculture and related fields, such as agro-processing, agribusiness, food science and home economics at the pre-university level.

5. UCC and KAC should become aggressive in developing grant proposals that could be submitted to funding agencies and foundations for funding the Technology Village and off-campus SEPs.

6. To allow GoG to be more abreast with the major developments on the SAFE programmes and commit more resources for implementation on sustainable basis:

   • The idea of a consultative group for SAFE programmes in Ghana involving principal stakeholders (GoG, SAFE, Alumni, farmers and UCC) should be revisited and concretized.
• There should be periodic documentation and reporting of activities, achievements, challenges and prospects of the SAFE programmes to create greater awareness among the relevant audiences including GoG.

• A line item for individual SEP of students and training under the B.Sc Extension programme at UCC as pertained to other MoFA training institutions should be considered by MoFA when it submits its annual budget to GoG. This will further ensure direct and sustainable GoG contribution to the SAFE programmes.

7. KAC (MoFA/GoG) should continue to sponsor staff for post-graduate studies. However, such staff should be bonded. Highly qualified and competent staff should be paid competitive salary and benefits that commensurate with their status as pertained to in other tertiary institutions in Ghana.

• Additionally, an enabling environment (good office space, good accommodation, instructional facilities) should be created and maintained by KAC to attract more of the highly qualified and competent potential staff.

• MoFA should consider seconding its qualified and competent staff in other Directorates to KAC as teaching staff.

• The Management Board of KAC should consider establishing business ventures to generate revenue into an endowment fund to be used to pay bonuses as a means of motivating staff at KAC.

8. MoFA (civil service) should address problems of promotion of graduates of the SAFE programmes to ensure that more of them enjoy the fruits of their labour.

9. The SAFE Alumni Association of Ghana should be developed into and/or linked up with a more Professional Association of Extension in Ghana. This can assist members to develop professionally. In the interim, they should: (a) embark on aggressive membership drive campaign, (b) strengthen of regional and district executives and (c) development a website to link up members and between membership and other professional association.

10. Information Communication Technology Development Centre (ICTDC) should be established at UCC and other SAFE institutions.

• The ICTDC could be used to aggressively promote and publicise activities, achievements and challenges of the SAFE programmes.

• It could serve as an enabling centre to carry out effective teaching and learning as well as a research into development and communication.

• Teaching-learning materials could be produced by the ICTDC to generate incomes to sustain the SAFE programme.

• It could be used for short-term training programmes, workshops and seminars for farmers, farmers’ groups, NGOs, and others involved in agricultural and rural development activities.
• ICTDC could be used to produce materials and innovative formats (including correspondence via postal mail, the Internet, CD ROMs) to ensure that mid-career staff do not leave their workplace for too long to physically attend classes.

11. SAFE management should institute an award scheme to honour best graduating Diploma and B.Sc. agricultural extension graduates. This will serve as motivator to current and future students of the programme.

12. UCC should increase the charges of rents and food and improve overall quality of services at the Sasakawa Guest Chalets and Restaurant. This will help generate more income to support SAFE programmes at UCC.

13. SAFE management should introduce the value chain approach in its training programmes. The approach should encompass all stages of production, processing, marketing (including export), and consumption of agricultural products/innovations/technologies.

14. SAFE management should give consideration to the creation of support academic chairs in all participating SAFE institutions. This will encourage extensionists to spend time in these institutions to inject new ideas and strategies into the programmes.
1.0 INTRODUCTION

1.1 Purpose of the Study

The primary purpose of this assignment was to generate up-to-date data on key components and the impact of the Sasakawa Fund for Extension Education (SAFE) Programme in Ghana with the expressed goal of using the findings to help establish effective strategies for developing sustainable SAFE-type programmes.

1.2 Key Elements and Specific Objectives of the Assignment

The following are the specific tasks of the assignment and constitute its key elements, to:

- Conduct a tracer study of the graduates of the SAFE programme at University of Cape Coast,
- Identify, analyze and elaborate key components of the programme at the University,
- Identify and assess major impacts of the programme, and
- Provide recommendations for developing and implementing sustainable SAFE-type programmes. Refer to Appendix I for Terms of References (TORs).

1.3 Methodology and Expected Outputs

1.3.1 Instrumentation and Data Collection

A multi-method approach was used to collect the required information and data. This included interviews, telephone conversations, document reviews, and completion of self administered and on-line delivered questionnaires and interview schedules.

Based on the key components as outlined in the TORs for the assignment (Appendix I), data/information collection instruments were developed, namely:

- Questionnaire for the Graduates (Appendix II),
- Questionnaire for the Department of Agricultural Economics and Extension, UCC (Appendix III),
- Interview Schedule/Questionnaire for the Technology Village, UCC (Appendix IV),
- Questionnaire for Kwadaso Agricultural College, Kumasi (Appendix V) and
- Questionnaire for the SAFE Alumni Association, Ghana (Appendix VI).

Copies of the questionnaire that targeted all graduates of SAFE were sent directly or through the appointed coordinators in the regions and via the internet to graduates in Ghana, Nigeria, Mozambique and Malawi. A total of 282 questionnaires were duly completed and returned.

Face-to-face interviews were held with the under listed supervisors/employers. Each interview session lasted between 20-45 minutes.

- Regional Directors of MoFA and NGOs such Newmont Gold Mining Company,
- Vice Dean, School of Agriculture, UCC,
- Coordinators of the Technology Village,
- Two executive members of the SAFE Alumni Association, Ghana, and
- Two officials (in charge of training and promotion) at the Headquarters of Human Resources Development and Management Division.
Quantitative data were collected on:
a) Names of graduates of the SAFE programme at UCC and KAC, their year and class at graduation,
b) Job classifications/positions and ranks,
c) Report of the Committee to review placement and correct distortions within the Ghana Universal Salary Structure for the Civil service, September, 2006.
d) Names of Senior Members, who have taught in the SAFE Programme as at 2007/2008 academic year, their position/rank and salary range at UCC and KAC,
e) Names, positions/ranks, salary points of employees at the Sasakawa Guest Centre (chalets and restaurant), Technology Village, and Department of Agricultural Economics and Extension (including the Student Hostel) all at UCC, and
f) List of members of the SAFE Alumni Association of Ghana.

Interview schedules were completed by the following officers, who provided the above hard data:
a) A Senior Accountant, Office of the Accountant, UCC
b) The Accountant, School of Agriculture, UCC
c) Current Coordinator, SAFE Programme, UCC
d) The Principal, Kwadaso Agricultural College, Kumasi,
e) The SAFE Coordinator, Kwadaso Agricultural College, Kumasi.
f) Administrative Secretaries /MIS officers at the Regional MOFA Directorates
g) Administrative staff at the Academic affairs Division of UCC

Documentation review was also done. Official documents supplied included the following.

a) Statements of accounts for the:
   i) Sasakawa Guest Centre at UCC (Chalets and Restaurant),
   ii) Department of Agricultural Economics and Extension, UCC
   iii) Technology Village at UCC, and
   iv) Supervised Enterprise Projects (SEPs) at UCC.

b) Vision and Mission Statements for the following were provided:
   i) Technology Village, UCC
   ii) SAFE Alumni Association of Ghana
   iii) SEPs concept

c) Annual reports on Technology Village, UCC

d) Long Range (Strategic) Plan for the Technology Village, UCC


f) Ghana Universal Salary Structure for the Civil service, September, 2006.
1.4 Critical Constraints to Conducting the Study

Consultants faced five (5) major constraints in the discharge of this assignment as follows.

- Extremely limited time allotted to conduct the assignment of this magnitude. The (20) person-days were grossly inadequate to meet the demand for a comprehensive study that would produce valid and reliable data/information.

- Amount of information/data expected according to the Terms of Reference (TORs) was huge. (Refer to the TORs)

- Dearth of ready-to-use, reliable comprehensive baseline data/information. Thus, in many instances consultants had to solicit, cajole, and appeal to scheduled officers to assist retrieve files, collate data/information, and prepare responses to questions or verify early information.

- Inaccessibility of the targeted graduate population. The SAFE Programmes at UCC and KAC have produce over 500 graduates, constituting the target population in Ghana, Mozambique, Malawi and Nigeria. Accessing and interviewing all of them in the short time frame were next to impossible since they are scattered throughout Ghana’s 10 regions and beyond.

- Timing of the assignment was, unintentionally, very inappropriate. The period conceded with final preparations for the National Best Farmer Day in Ghana, in which majority of the SAFE graduates were active in farm assessments at the district, regional and national levels. Also, many were sponsored by MoFA to attend short courses in both Ghana and abroad. Therefore, accessing the graduates was a nightmare.

- There was an unacceptably high degree of unwillingness on the part of some respondents (graduates and scheduled officers) to voluntarily provide data/information due to the coincidence of the assignment with the period of the year that demanded the time of respondents to complete the end-of-year activities and reports.
2.0 MAJOR FINDINGS

2.1 Graduates of SAFE Programme at University of Cape Coast

2.1.1 Academic Statistics on Sasakawa Extension Fund for Extension (SAFE) Graduates

The first batch of the graduates of the SAFE programme received their certificates at the 27th Congregation of University of Cape Coast on Saturday March 1, 1997. The statistics on sex and class of graduates are presented in Appendices II and III. The highest number of first class graduates of 7 was recorded during the 1996/1997 academic year. The SAFE programme in Ghana turned out an average of 25 and 37 graduates respectively for the Bachelor and Diploma programmes each year.

Although 576 students have been enrolled in the SAFE Ghana programmes as of December 2007, a total of 561 (305 for B.Sc. and 256 for Diploma) have successfully completed their studies. Fifteen (15) students are still trailing in one or more courses. There were more males (13) who have not completed the programme as compared to females (2).

Majority of the graduates (258 for B.Sc. and 225 for Diploma) have completed with Second Class Honours or better. It could, therefore, be said that the SAFE Programme has provided the opportunity for mid-career agricultural staff to advance academically. Most Universities prefer graduates with Second Class Honours or better to enrol in the Bachelor or Master’s programme.

The overall academic performance of male graduates has been at the various classes as compared to the female counterparts whose performance has revolved around the Second Class division. There were more males attaining First and Third class status than female graduates.

The highest number of 52 B.Sc. graduates consisted of two groups (25 post Diploma students and 27 4-year certificate students). This batch of certificate graduates was the last to be hosted on UCC campus until the Kwadaso Agricultural College in Kumasi started the running of the Diploma in Extension programme in 1999.


Students have the following reservations concerning graduation and the issuance of certificates:

- The Diploma graduates were alarmed about the possibility of recall of their certificates due to the failure of the University of Cape Coast administration to issue the requisite certificates for the programme pursued. The certificates issued to Diploma graduates read “Diploma in Agricultural Economics and Extension” instead of “Diploma in Agricultural Extension”. Although some graduates prefer such certificates because it opens up more avenues for possible employment, others were concerned about the future consequences.

- Students who have redeemed trailed courses found it difficult to be credited with their marks on time. This has led to inability of some graduates to attend the congregation ceremonies. Graduates have to overcome a lot of administrative bottlenecks to have
final results credited and certificates issued once they miss their respective congregations.

2.1.2 Status of SAFE Graduates

2.1.2.1 Promotions
Grades to which graduates can be promoted within the Ministry of Food and Agriculture, where majority of the SAFE graduates work, range from Assistant Agricultural Officer (or its equivalent) to Assistant Director (or its equivalent) in the professional class category (Appendix IX). The grades in the sub-professional class range from Production Officer (or its equivalent) to Assistant Chief Production Officer (or and its equivalent).

A graduate is classified as a professional if he/she has a B.Sc. On the other hand, a sub-professional is a graduate with Diploma. There are 10 steps at each level within the class. A graduate could move to the next step each year, but is only promoted to the next higher level within the class after attending a successful interview every three years.

Records available at the Regional Directorates of the Ministry of Food and Agriculture in Ghana, telephone conversation with some graduates and responses to questionnaires revealed that 198 of the graduates have been promoted to the professional class category and 133 to the sub-professional category. Additionally, about 67 graduates could also have been promoted to the sub-professional category because they have obtained the Diploma certificate but they preferred to remain at the technical class. This is because the level of salary at the last two grades of the technical class are higher than the first two grade points of the sub-professional class (See Appendix IX).

The difficulties encountered by graduates with regards to promotion include:
- Inconsistencies in the levels of grades, which do not lead to immediate increase in income after promotion. A Diploma graduate, for instance, who is an Assistant Chief Technical Officer, would prefer to remain at level 14 than to be promoted to a Production Officer in the sub-professional class at level 12.

- Graduates in some departments are not promoted regularly. Some graduates have found it expedient to transfer to Departments where promotion is done regularly.

- The non-availability of positions at the higher levels in the grade ladder of promotion is a major cause of concern for graduates. Some graduates claim they are due the Assistant Director or Director grade yet have no choice but to wait until there are vacancies due to the quota system that operates in the Ministry.

2.1.2.2 Incomes of Graduates
All graduates have received an increase in annual basic income. Majority of the graduates could not indicate their basic income before enrolment in the SAFE programme. However, they perceived an increment of 2 to 6 times in levels of basic income since graduation. The estimated basic annual income for graduates within the Ministry of Food and Agriculture ranged from $2,101.09 for graduates at Technical Officer I step 1 to a maximum of $8,430.01 at step 10 in the Assistant Director grade. While the annual basic income of majority of the B.Sc. graduates ranged from $4,399.64 to $5,574.55, that of the Diploma graduates ranged between $3,273.75 and $4,147.99 (Appendix IX).
Although the increments in annual income of graduates might have come from general adjustments and increases in income levels provided by central government to its workers and the automatic annual movement along the steps in the grade level, the SAFE programme has contributed immensely. The absolute maximum basic salary a Diploma holder without a B.Sc. degree could have received under the current salary regime, all other factors considered, would have been $6,462.43 in the Assistant Chief Production Officer category. However, a graduate from the B.Sc. programme is capable of attaining the maximum of $8,430.01 at step 10 in the Assistant Director position after years of service before retirement. This accounts for approximately a 30.4% increment.

There were other intangible incomes that accrue to graduates as a result of improvement in the education of status provided by the SAFE Programme. The positions they occupy as a result of higher education allow them to obtain a lot of allowances from participation in workshops, conferences, seminars and other in-service trainings they receive from time to time.

However, most of the graduates working with MoFA, Ghana believed that there is a significant discrepancy between their income levels and their colleagues with the same level of qualification but employed by other organizations. For example:

1. The equivalent annual basic income of graduates in organizations such as Cocoa Board, NGOs and Banks is about 200% higher than their colleagues in the Ministry of Agriculture.
2. The monetary incentives and motivation packages of other organizations are better than that of Ministry of Food and Agriculture.
3. A graduate who completes a B.Sc. programme and employed by Ghana Education Service starts at level 14 while those employed by the Ministry of Food and Agriculture starts at level 11. This becomes a disincentive.

2.1.2.3 Supervisory Responsibilities
The supervisory positions of graduates have improved since graduation. Key responsibilities being performed by graduates include supervision of projects (Livestock, Horticultural Development, Millennium Development Programme, Inland Rice); assuming the role of team leaders, resource persons and trainer of trainers; writing of proposals and reports (monthly, quarterly); programme planning, budgeting, and the management of funds; monitoring the activities of other works and backstopping; and liaising with other development partners.

Currently, 76 (13 %) of the graduates are directors, managers and officers at the regional level (Table 2). The directors are among the highest decision-makers in the Ministries of Agriculture. In Mozambique, for example, the first graduate is second in command in the Directorate of Extension at the headquarters. The other SAFE graduates are Provincial and District Directors of Agriculture. Most of the graduates (45%) are District Development Officers (DDOs), who supervise the Agricultural Extension Agents (AEAs).

2.1.2.4. Location and Employment of Graduates
Five hundred and seventy-six (576) students have passed through the two SAFE programmes in Ghana. The graduates actually totalled 534 as some have continued from the Diploma into the B.Sc. programme (Appendix VIII). Eleven of the graduates are deceased as of 2007. The
six (6) graduates who are outside Ghana, incidentally, are all females. They have joined their spouses abroad.

Thirty three (33) of the graduates are working with organizations other than the Ministry of Food and Agriculture. Of these, three (3) have joined the programmes from the Council for Scientific and Industrial (CSIR) in Ghana, one (1) from a church based organization, one (1) with an NGO and six (6) from the Cocoa Board in Ghana on fee paying basis.

Twenty –two (22) graduates sponsored by the government through the Ministry of Agriculture have left to other organizations. Most of them are found with NGOs (n=13) and banks/private sector (n=6). The other three (n=3) resigned and joined Cocoa Board of Ghana.

Table 2: Positions of Graduates from SAFE Programme, Ghana as of 2007.

<table>
<thead>
<tr>
<th>Position</th>
<th>B.Sc. Graduates</th>
<th>Diploma Graduates</th>
<th>Totals</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Directors and Managers</td>
<td>40</td>
<td>-</td>
<td>40</td>
<td>7</td>
</tr>
<tr>
<td>Regional Development Officers</td>
<td>35</td>
<td>1</td>
<td>36</td>
<td>6</td>
</tr>
<tr>
<td>District Development Officers</td>
<td>182</td>
<td>79</td>
<td>261</td>
<td>45</td>
</tr>
<tr>
<td>Tutors</td>
<td>15</td>
<td>6</td>
<td>21</td>
<td>4</td>
</tr>
<tr>
<td>Agricultural Extension Agents</td>
<td>2</td>
<td>137</td>
<td>139</td>
<td>24</td>
</tr>
<tr>
<td>*Others</td>
<td>41</td>
<td>38</td>
<td>79</td>
<td>14</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td>274</td>
<td>223</td>
<td>576</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: Case Study on SAFE Graduates in the University of Cape Coast, December 2007.
* Includes graduates who have either travelled, retired or are on study leave or are deceased.

2.1.2.5 Academic Progression of Graduates
Fifty-eight (58) of the graduates have completed higher education in Ghana or other countries. Currently, there are 55 graduates who are at various levels of completion of a higher education. Some of the Diploma graduates (n=45) have continued to the B.Sc. Agricultural Extension programme at University of Cape Coast in Ghana (Appendix XI).

An analysis of the post-B.Sc. training shows that majority of the graduates have specialization in agricultural extension. Others have graduated or are pursuing specializations in agronomy, agricultural economics, agricultural business, post-harvest physiology, food safety and quality management, and food and post-harvest engineering.

2.2. Major Components of the SAFE Programme at University of Cape Coast

2.2.1. The Sasakawa Centre

The Sasakawa Centre at UCC was built in 1994 to demonstrate the commitment by SAFE and its partners to provide opportunities for mid-career front-line extensionists in Ghana and beyond to pursue a first degree. The Centre is part of the School of Agriculture and houses the Department of Agricultural Economics and Extension. There are three main units, namely: (1) the restaurant, the guest chalets (a 16-room facility), (2) the offices and conference facility, and (3) the students' hostel. The offices house the Department of Agricultural Economics and Extension. The primary objective of the conference facility, guest chalets and restaurant is
income-generation. Proceeds from them are used to help fund activities of the School of Agriculture, especially those under the SAFE Programme.

The total construction cost for the Sasakawa centre offices, conference facility, and student hostel was US$231,600.00. Contributions were from four main sources as follows:
- Sasakawa Africa Association (US$100,000)
- University of Cape Coast (US$ 61,600)
- USAID (US$ 50,000) and
- Ministry of Agriculture, Ghana (US$20,000).

The total cost for the construction of the guest chalets and restaurant was US$130,000. This was financed from US$ 30,000 grant and US$100,000 loan from Sasakawa Africa Association. In 2006, Sasakawa Africa Association committed the remaining US$ 60,000 loan as grant to expand the facilities of the Guest Chalets in University of Cape Coast.

2.2.1.2 Management System
A Sasakawa Centre Management Board, chaired by the Dean, School of Agriculture, has direct oversight responsibility for the Centre. A manager oversees the day-to-day running of the guest chalets, restaurant and conference facility. The Manager is assisted by Senior Accounting Assistant. In all there are 17 full-time employees who work under the manager including cooks, waiters/waitresses, cleaners, and a driver (Figure 1). The Manager is supervised by the Head of the Department of Agricultural Economics and Extension who is a member of the Management Board.

![Organogram of Sasakawa Guest Chalets and Restaurant](image)

2.2.1.3 Running Costs and Sources
Major components of the running costs for the Sasakawa Guest Centre are salaries, fuel and maintenance of a vehicle, utilities, food and drink, cooking gas, and other supplies. The expenses for the 2003-2006 period show steep increases especially between 2005 over 2004 and 2006 over 2005 (Table 3).

2.2.1.4 Income Generated, Sources and Use
The Sasakawa Guest Centre generates income from the following main sources: accommodation charges for the chalets, sale of food and drinks from the restaurant, rental of
conference facility, and residential user fees in the hostel. Additionally, the hostel facility is rented out to guests during holidays when students are away.

Table 3: The Running cost of Sasakawa Guest Centre from 2003 to 2006

<table>
<thead>
<tr>
<th>Year</th>
<th>Running cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>2003</td>
<td>96,230,000</td>
</tr>
<tr>
<td>2004</td>
<td>105,540,000</td>
</tr>
<tr>
<td>2005</td>
<td>421,790,000</td>
</tr>
<tr>
<td>2006</td>
<td>516,990,000</td>
</tr>
</tbody>
</table>

Source: The Directorate of Finance, UCC and Case Study Data, December 2007

A four-year trend (2003-2006) of income generated from the Guest Centre is presented in Table 4. The figures range from $266.13 million (US$27,834.95) in 2004 to a maximum of $1.047 billion (US$109,507.37) in 2006.

Table 4: Incomes from Sasakawa Guest Centre from 2003 to 2006

<table>
<thead>
<tr>
<th>Year</th>
<th>Income</th>
</tr>
</thead>
<tbody>
<tr>
<td>2003</td>
<td>285,700,000</td>
</tr>
<tr>
<td>2004</td>
<td>266,130,000</td>
</tr>
<tr>
<td>2005</td>
<td>1,047,000,000</td>
</tr>
<tr>
<td>2006</td>
<td>855,850,000</td>
</tr>
</tbody>
</table>

Source: The Directorate of Finance, UCC and Case Study Data, December 2007

The net profit figures for guest centre from 2003 to 2006 are shown in Table 5. Figures in Table 5 show a checkered trend of a decrease (2004 over 2003), a steep increase (2005 over 2004) and a sharp decline (2006 over 2005).

Table 5: The net profit from Sasakawa Guest Centre from 2003 to 2006

<table>
<thead>
<tr>
<th>Year</th>
<th>Net Profit</th>
</tr>
</thead>
<tbody>
<tr>
<td>2003</td>
<td>189,640,000</td>
</tr>
<tr>
<td>2004</td>
<td>160,590,000</td>
</tr>
<tr>
<td>2005</td>
<td>626,150,000</td>
</tr>
<tr>
<td>2006</td>
<td>338,850,000</td>
</tr>
</tbody>
</table>


Income generated from the Sasakawa Centre has been used for a variety of purposes and these are summarized below:
• Management and supervision of Supervised Enterprise Projects (SEPs) at UCC,
• Contribution to the purchase of resources for the implementation of the BSc. Agricultural Extension curriculum (SAFE Programme) at UCC,
• Payment of salaries and bonuses of employees at the guest chalets and restaurant,
• Repair and maintenance of the facilities at the Centre,
• Servicing of part of loan facility from SAFE for construction of Chalets,
• Contribution to the purchase of a vehicle for SEPs at UCC and
• Contribution towards the operational costs of the Department of Agricultural Economics and Extension.

2.2.1.5 Challenges and Constraints to the Sustainability of the Sasakawa Centre

The Sasakawa Centre is perceived as an invaluable asset to the UCC. There is ample evidence that the Centre is still operating at below its fullest potential. Expectations are that it increases its profit margin steadily. This, in turn, would translate into significant increases in its contribution to the academic programme that it was set up to assist. Several constraints, however, hamper its smooth running and profitability. They include the:

• Poor management of the income-generating units especially the restaurant, chalets and conference facility.

• Under-priced cooked food at the restaurant when compared to similar outfits in the Cape Coast Municipality.

• Overall poor quality of non-food services at the restaurant. This has caused significant reduction in the daily patronage of the facility. In turn, this has also caused reduction in profit margins over the years.

• The nightly rates per room at the chalets are comparatively lower to those of similar facilities in the Cape Coast municipality.
• The Sasakawa Guest centre and conference room have not been aggressively advertised. This accounts in part, to the rather low patronage. There is the need to “sell” the facility to the general public.

2.2.1.6 Strategies to Ensure Sustainability of the Sasakawa Centre

• The Board has been re-structured to give School of Agriculture more control in the management of the facility.

• Improvement of the management of the Guest Centre has been proposed.

• Forensic auditing of the restaurant to identify weakness and threats so as to chart new course has been undertaken.

• Regular repair and maintenance of facilities to attract more customers.
• Plans are far advanced to expand the guest chalet facility in order to generate more funds for the SAFE programme. The architectural drawings for the expansion are ready. The University is negotiating with a bank for a loan to begin the project.

2.3 The Technology Village

The Technology Village is not a village in the traditional sense. It is a tract of land situated in or near some of the SAFE training institutions. It is dedicated to the development of innovations and practical training for students, farmers and the general public. The range of agricultural technologies and practices found in Technology Village include beekeeping, mushroom farming, small ruminant production and post harvest technologies such as honey extractors, grain mills, threshers, shellers, solar food dryers, and oil extractors. The Technology Village complements the off-campus SEPs component of training programme.

2.3.1 The Concept of Technology at UCC

In 1998 the School of Agriculture, University of Cape Coast established the Technology Village. It was in response to the need to seek and promote sustainable non-traditional agricultural enterprises. Primarily, the purpose of the facility is to develop/adapt and demonstrate improved technological innovations that are practical, affordable, and sustainable to students and the general public for income generation.

2.3.2 Vision Statement

The Technology Village is to become a community-based technology centre of excellence for agricultural teaching and learning, with particular emphasis on non-traditional enterprises and income generation.

2.3.3 Mission Statement

Its mission is to teach people how to produce and process healthy food through the caring for plants, animals, and the soil; inculcate respect, understanding and appreciation of nature; share the philosophy of farming as both a business and a way of life.

2.3.4 Strategic Goals/Core Business

Four cardinal functions, hence goals, of the Technology Village are:

• Outreach/Extension Function: to serve as an educational/learning centre for exhibition of improved non-traditional innovation and training for farmers, school children and the general public at large.
• Food Production Function: to produce and process food and by-products.
• Land Resource Use Function: to demonstrate the use of the most effective and efficient systems and methods for sustainable agriculture and land stewardship.
• Research and Technology Development Function: to conduct applied research in non-traditional agricultural production systems and processing.
• Income generation: To sell high quality snails, gari, cassava chips, oil palm, grasscutter and mushroom.

2.3.4.1 Expected Effects and Intended impact

First, in terms of the food/agricultural production function, it is expected to increase its production levels of high quality snails, gari, cassava chips, oil palm, grasscutter and mushroom.
Second, with respect to the Outreach/Extension function, the facility is expected to provide practical and relevant training to UCC students in an ever-increasing number of available non-traditional agricultural production and processing systems.

As part of its Outreach/Extension mandate, the facility should serve as a living laboratory for farmers and students from both the public and private educational institutions that have interest in non-traditional agriculture systems and the environment. As a Learning Centre, the Technology Village should take full advantage of regional, national and international agricultural shows, exhibitions and fairs by actively participating in them.

Third, with regard to its research and technology development function, the facility should continue to engage in research and the development of new/improved technologies:
- The economics of mushroom and gari production,
- Use of various types on compost in mushroom production,
- Effective of music on mushroom yields,
- Use of crib technology in storage of potato,
- Solar drying of vegetables, and
- Develop an IPM programme for pest control in sweet potato.

Fourth, the facility is expected to strengthen its formal teaching function. It would serve as an outdoor laboratory for students of agriculture in the School of Agriculture including those under the SAFE Programme with special focus on non-traditional agricultural systems of production and processing.

Lastly with respect to income generation, the facility is expected to sell high quality snails, gari, cassava chips, oil palm, grasscutter and mushroom.

2.3.5 Management System

There is a Coordinator for the Technology Village who reports to the Management Board. The Board, in turn, reports to the Dean of the School of Agriculture. In turn the Dean reports to the School Board. There is a Supervisor, who oversees the daily operations of the facility. The incumbent supervises number of employees who work in various units within the facility and reports to the Coordinator. The Technology Village has a full-time staff complement of 11. Their ranks range from Assistant Technician \( n = 2 \) through Headman to Labourer \( n = 6 \).

2.3.6 Initial Cost for Establishment of the Technology Village

In 2000, the Sasakawa Africa Association provided an amount of US$7,300 (Seven Thousand, Three Hundred US dollars) as part of the seed money for the establishment of the facility at Technology Village.

2.3.7 Existing Facilities

Initially, the facility had the following main units: Agro-Forestry Unit, Grasscutter Unit, Snailery, Mushroom Unit, Apiary, and Agro-Processing Unit, and Aquaculture Unit. Presently the Agro-Forestry unit is non-functional. The apiary has been relocated to Kakum Park to make way for the construction of the School of Agriculture building. The fish ponds are not yet operational due to technical problems.

2.3.8 Technologies Introduced

Innovations in agricultural production and agro-processing thus far introduced and promoted include:
• Grasscutter farming,
• Snail farming,
• Mushroom farming,
• Honey production (apiculture) and
• Agro-processing of cassava into gari and chips, and oil palm as well as smoking of pork and fish.
• Efforts have been made to introduce fish farming (aquaculture). The project is yet to materialize.

All the above production systems are of local origin. They have existed in the country, but operated on extremely limited scale. However, the grasscutter industry has adapted improved practices, especially housing and feeding from The Republic of Benin.

2.3.9 Running Cost, Income and Sources

The income and expenditure figures in Table 6 reveal a steep declining trend over the three-year period. Thus, the facility posted huge losses in those three years. This becomes a constraint as well as a crucial challenge to its sustainability in the short term.

Table 6: The Running Costs and Incomes from Technology Village

<table>
<thead>
<tr>
<th>Year</th>
<th>Expenditure</th>
<th>Income</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Amount (¢)</td>
<td>Amount (US$)</td>
</tr>
<tr>
<td>2003</td>
<td>38,044,030</td>
<td>3,979.08</td>
</tr>
<tr>
<td>2004</td>
<td>12,391,986.50</td>
<td>1296.10</td>
</tr>
<tr>
<td>2005</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>2006</td>
<td>978,500</td>
<td>102.34</td>
</tr>
<tr>
<td>*2007</td>
<td>N/A</td>
<td>-</td>
</tr>
</tbody>
</table>


2.3.10 Effects: categories of beneficiaries, numbers trained/visitors

There is little evidence to show that the Technology Village has impacted significantly on the livelihoods of the farming communities in and around the University. Moreover, the transfer of both knowledge and know-how to farmers and agro-processors can be described as very minimal. Students in the general programme of the School of Agriculture have not benefited from the facility as expected.

Notwithstanding the poor performance of the Technology Village, the following are some of the modest achievements that should form the basis for its support to ensure its sustainability.

First, in terms of the food/agricultural production function, it is perceived that the Technology Village made an impact on the University community in the first four years. It produced and sold snails, gari, cassava chips, oil palm, and mushroom.

Second, with respect to the Outreach/Extension function, the facility successfully trained interested members of a number of non-governmental organizations, especially in grass-cutter production. A number of retirees were also trained in both snail and grass-cutter rearing.
Students from both the Basic and Senior Secondary school systems received practical lessons in agriculture at the facility.

Third, still as a Learning Centre, the general public have benefited from the exhibitions mounted from the Technology Village outfit during agricultural fairs and shows. The Technology Village actively participated in the Agricultural Fair and Exhibition (AGRIFEX) 2001 and the Educational Fair 2004. The students under the SAFE Programme at UCC, NGOs, retirees (individuals), students of basic and secondary schools have benefited from the innovations at the Technology Village.

Fourth, with regard to it research and technology development function, the facility has, as of 2000 and 2001, been engaged in the following studies:

- The economics of mushroom and gari production
- Use of various types on compost in mushroom production,
- Effect of music on mushroom yields
- Use of crib technology in storage of potato
- Solar drying of vegetables, and
- Development of an IPM programme for pest control in sweet potato.

Fifth, the smokers’ stove technology was also introduced to urban communities in Accra as part of SEPs. However, very few technologies have since been introduced.

### 2.3.11 Major Challenges and Constraints to Sustainability of the Technology Village

- Currently, the Technology Village faces several challenges to its sustainability. These include the following:
- There is an on-going debate as to the whether or not the facility should be primarily income generating or an educational learning centre for non-traditional agricultural production systems. This has stifled funding from the University and in turn it has negatively impacted on effective programming.
- It has posted meagre revenues over the years, but more so during the period under review.
- Inactive management board.
- Lack of adequate funding. There is no line-budget for the facility in the School of Agriculture budget.
- The equipment and machinery such as tractor and accessories, farming and gardening tools are either inadequate or even lacking.
- The support staff at the facility are not technically knowledgeable and competent in their respective areas of operation such as snailery, mushroom, and grasscutter rearing.
- The absence of a substantive coordinator and inadequate supervision of staff for a period of a time affected the operations of the facility.
- Academic departments have not fully utilized the facility as a teaching-learning centre.
- There has been little improvement in the technologies/innovations introduced at the facility.
- The Technology Village has no secretariat; hence there is neither office space nor scheduled secretarial support.
- Mobility of the staff, including the Coordinator and Supervisor, has been constrained due to lack of a vehicle for a long time.
- The existing infrastructure comprising the various units is in a deplorable state and in need of rehabilitation.
2.3.12 Strategies to Ensure Sustainability of the Technology Village

- The School of Agriculture has plans to revamp the Technology Village and to introduce new technologies. Apart from the initial four non-traditional agricultural production systems and agro-processing technologies, the following are to be introduced, in the short and medium to long-term:
  - Rabbit production,
  - Composting technology,
  - Non-traditional poultry such as ducks, guinea fowls, and ostriches,
  - Ornamental horticulture (cultivation of exotic plants),
  - Establishment of a pesticidal (including neem) and medicinal plants unit,
  - Establishment of a Greenhouse with its related technologies and production potentials,
  - Expansion of cassava processing into flour, starch and tapioca,
  - Production of jams, marmalades, fruit punches,
  - Dairy products such as ice-cream, yoghurt,
  - Vegetable oil extraction,
  - Vegetable oil production,
  - Alcohol production from fruits and
  - Use of draught animal power (the donkey and cart technology).

- The strategic position of the Technology Village, as planned, is to adopt the value chain approach to agriculture. Consequently, all innovations/technologies will encompass all stages of production, processing, marketing (including export) and consumption of the given product.
- An old vehicle has been repaired and allocated to the facility recently to improve mobility of the staff.
- Suggestions have been put forward for Academic Departments of the School of Agriculture to allocate part of their internally generated Academic and Facility User Fees (AFUF) to revamp the Technology Village.

2.4 Supervised Enterprise Projects (SEPs)

The innovativeness of SAFE programme is largely based on the Supervised Enterprise/Experience Projects (SEPs). The SEPs constitute the nerve centre of the B.Sc. and Diploma Agricultural Extension programmes for mid-career extension staff in Ghana.

2.4.1 The Concept of SEPs

The main aim of the SAFE programme is to produce graduates with the requisite human relations, methodological and technical skills that can solve farmers’ problems. Emphasis is therefore placed on experiential learning; i.e. the combination of theory, experience, critical reflection and practice. Consequently, the concept of SEPs is the means of nurturing the philosophy of experiential learning which is derived from the vision, mission and strategic objectives of the SAFE programme (Appendix XII).

After one academic year of coursework on-campus students identify problems in conjunction with farmers and employers and then develop proposals with the assistance of lecturers (supervisors). They return to their places of employment to undertake the action-oriented and extension research projects with support from beneficiary communities, co-supervisors and
employers. The SEPs are, thus, designed to immerse students in valuable farmer-focused, experience-based learning activities that mirror the total milieu surrounding subsistence and semi-commercial farming systems.

2.4.2 The Function and Management of SEPs

The two phases (on-campus and off-campus) of SEPs are coordinated by a committee that is chaired by the SAFE/SEPs Coordinator. The committee is comprised of a SEPs Coordinator selected from the Department of Agricultural Economics and Extension, who serves as the chairperson. It handles the day-to-day operations of the SEPs programme, draws up the SEPs plans for field visits, coordinates the activities of the teams of Faculty Supervisors, and prepares and manages the SEPs budget. The SEPs Coordinator reports directly to the Head of Department of Agricultural Economics and Extension, who in turn reports to the Dean, School of Agriculture and the Vice Chancellor on activities of SAFE (Figure 2). The coordinator liaises with supervisors from other Departments during the implementation of SEPs.

Supervisors guide students during the conceptualization and design of their on-campus SEPs and the implementation and evaluation of the off-campus SEPs. Teams of supervisors consist of Faculty members from the various Departments in the School of Agriculture and as well as other related departments such as (Department of Entomology and Wildlife) outside the School of Agriculture, whose field of specialization bears directly on the SEPs topics. Some of the topics (problem areas) of SEPs are presented in Appendix XIII.

The employers co-supervise during the implementation of the off-campus SEPs. Over the years the co-supervisors have been graduates from the SAFE programme, Directors and subject matter specialists from MOFA, research institutions and sister universities.

2.4.3 The Implementation Cost of SEPs

There are two main aspects of cost for the implementation of SEPs. The cost incurred by students and the cost incurred by UCC/KAC. The average estimated cost of individual student’s SEP is about ₵10,000,000 (US$1,045.92) (See Appendix XIII).
According to graduates, the contributions come from individual students, NGOs, banks, Municipal/District assemblies, beneficiary communities, and the Ministry of Food and Agriculture. There has been partial funding of students’ SEPs from the Ministry of Food and Agriculture in the last three years to the tune of $2,000,000.00 (US$209.18) per annum per student under the AgSSIP support which ended in 2007.

The cost incurred by the University of Cape Coast and Kwadaso Agricultural College for the supervision of the SEPs mainly comes from:

- An annual grant from SAFE for supervision of the SEPs (the sponsorship ended in 2002 for UCC and 2006 for KAC).
- Profits from Sasakawa restaurant and chalets for UCC.
- Fees paid by foreign students under sponsorship from SAFE.
- Each foreign student enrolled in SAFE programme pays US$3000.00 towards the supervision of SEPs in his/her country.

The amount of money that was spent on the supervision of the SEPs at University of Cape Coast in the past three years (2004-2006) is presented in Table 7. The average cost per year in the last three years is about $128,050,875 (US$13,393.04). The cost of supervision per student on off-campus SEPs is estimated at US$530.00.

Table 7: Expenditure on SEPs at University of Cape Coast, 2004-2007

<table>
<thead>
<tr>
<th>Cost Component</th>
<th>Amounts (¢) for Academic Year</th>
<th>Average</th>
<th>Average (US$)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Night and Supervision allowance for lecturers, drivers and fuel.</td>
<td>71,385,165</td>
<td>97,820,450</td>
<td>93,608,800</td>
</tr>
<tr>
<td>Taxes</td>
<td>1,710,000</td>
<td>1,878,750</td>
<td>1,803,800</td>
</tr>
<tr>
<td>Vehicle maintenance</td>
<td>6,935,000</td>
<td>9,456,560</td>
<td>9,000,000</td>
</tr>
<tr>
<td>Equipment, stationery and supplies</td>
<td>3,043,000</td>
<td>31,481,700</td>
<td>42,874,400</td>
</tr>
<tr>
<td>Workshops and meetings</td>
<td>638,000</td>
<td>11,393,000</td>
<td>12,050,000</td>
</tr>
<tr>
<td>Communication and postage</td>
<td>572,500</td>
<td>700,000</td>
<td>700,000</td>
</tr>
<tr>
<td>Total</td>
<td>71,385,165</td>
<td>152,730,460</td>
<td>160,037,000</td>
</tr>
</tbody>
</table>

Source: Case Study on SAFE Graduates in the University of Cape Coast, December 2007.

2.4.4 Challenges and Constraints for Sustainable Implementation of SEPs

- Promoting the concept and gains of SEPs as an effective tool for development among development partners so as to ensure their continuous funding support and commitment.

- Sustaining the rigour of SEPs among students. Some students seem to relax with time during the SEPs implementation. Co-supervisors are not well resourced (financially and materially) to provide regular supervision on the field. Supervision by lecturers has been reduced to one visit only in view of the dwindling budgetary support.

- Mobilizing adequate resources to support individual student to implement the off-campus SEPs. Some students work in distressed communities. Efforts to raise sufficient resources
to support SEPs often yield no results. In such cases, they select problems, which are less resource-intensive. Projects based solely on the above consideration are often not sustainable beyond implementation and especially after supervision by lecturers.

- Ensuring sustainability of SEPs after graduation of students. As a learning tool, most SEPs could be described as highly sustainable. However, after graduation, graduates do not seem to demonstrate the same level of commitment due to financial constraints and transfers from areas of operations. The hardware aspects of most technologies transferred by students do not seem to be in existence in most communities in which SEPs were implemented.

- Review of the evaluation criteria to ensure that they are responsive enough to assess the experiential learning activities. The current evaluation criteria being used have been used since the inception of the programme. The challenge is to develop more sensitive assessment instruments that can ensure that the vision and mission of the programme are maintained while at the same time retaining academic and institutional rigours expected in assessing students’ projects.

- Financial challenges.

1. Mobilizing adequate funds to support follow up activities on SEPs.

2. Purchasing of two (2) new vehicles (pick-up truck and that of 4x4 land cruiser) to facilitate field supervision at University of Cape Coast. Currently, the Department of Agricultural Economics and Extension depends on the School of Agriculture for vehicles and its own new pick-up truck (recently purchased) to visit and supervise students on the field. The old pick-up trucks donated by SAFE are not strong enough to travel. The cost of new pick up truck is estimated at US$22,000 and that of 4x4 land cruiser is approximately US$48,000. KAC will find it very difficult in the next two years to obtain vehicles to supervise students’ SEPs in view of the bad state of their vehicles.

3. Remuneration of lecturers at realistic rates for their invaluable contributions to the conceptualization, design, implementation, and evaluation of SEPs. The entire process of programming for SEPs demands extra attention as compared to supervision of other B.Sc. students. Moreover, the conditions on the field during supervision often involve sacrificing comfort compared to the University’s remuneration for performing such duties under other programmes/conditions. Due to poor remuneration, there is low morale among lecturers/co-supervisors who would otherwise be willing to engage in SEPs for the development of practical skills by their students. The situation requires providing the enabling environment to motivate the staff to effectively nurture the programme. Thus, there is a need to institute a more enticing incentives package to staff and co-supervisors.

2.4.5 Strategies for Addressing Challenges and Constraints

In spite of the challenges mentioned above, the Department of Agricultural Economics has put into place the following strategies to address them:

- Institutionalization of SEPs workshop each year to review and address the challenges and constraints. These workshops have been very useful in re-orienting new staff. The workshops are intended to come up with flexible criteria which would meet the institutional
requirements of academic rigour and yet accurately assess the students’ experiential learning.

- Expansion of the facilities at the Sasakawa Guest Centre to generate more income in order to maintain and support the SAFE programme. More vehicles and teaching-learning equipment and materials could be purchased to support the programme.

- New computers and ICT facilities have been acquired for staff in the Department to enhance the performance of their duties.

- The Department is considering a proposal to raise US$15,000 to hold workshops for its major stakeholders on the concept of SEPs. It is meant to invigorate their commitment and support.

- Discussion with Ministry of Food and Agriculture to tactfully remind its leaders that the SAFE programme is one of its bonafide programmes; hence they should accord it the same attention as the other institutions. Talks with MOFA to work out a modality to include the cost of running off-campus SEPs into its annual training and human resource development budget are on-going. If and when the modality is finally approved, students will benefit from enough budgetary allocation from the Ministry to ensure the smooth implementation of their SEPs.

2.5 The SAFE Alumni Association of Ghana

The SAFE Alumni Association, Ghana was formed in 2002 out of necessity with financial support from SAFE management. It has since held three biennial congresses in Cape Coast and Kumasi. The Association is governed by a constitution. Affairs of the group are managed from its secretariat at the Kwadaso Agriculture College campus, Kumasi.

2.5.1 Executive Board

There is a national board made up of 9 members and headed by a President. Other officers include a Vice-President, General Secretary, Financial Secretary, Organizing Secretary, and 4 others. The Constitution provides for five (5) executive members for each of the regional branches. There are also 10 regional representatives.

2.5.2 The Mission of the Alumni Association

The Mission of the SAFE Association in Ghana is:

“To strengthen and facilitate networks amongst the SAFE graduates and link up with other sister institutions in agricultural education in Ghana”

2.5.3 Strategic Objectives/Goals and Core Business

There are three (3) principal objectives of the Association, namely, to:

- Foster unity, professional development and networking among members,
- Support and promote the SAFE Programme, and
- Promote the welfare of members.

2.5.4 Membership

In order to be a full-fledged member, an individual must be a graduate of the SAFE Programme at UCC or KAC. Membership complements of the Association stood at 160 (28 %) as of
December 2007 from a combined graduates register (UCC and KAC) of 576. As some key executive members lamented, this situation has become one of the major challenges the Association faces.

2.5.5 Costs of Running the Association
- On the average, the Association incurred an annual running cost of ₦2,000,000.00. The main cost item was communication.
- The total cost of ₦73,883,000 (about US$7,727.54) was spent to organize the 2006 SAFE Alumni Association Congress. Most of the cost covered transport, fuel and meals. The itemize budget was funded by SAFE (Table 8).
- *The Extensionist*, the Alumni newsletter, was produced at the cost of ₦4,900,000 (US$512.50). SAFE provided funds for this assignment.
- The Secretariat of the Association was also furnished and equipped by SAFE.

Table 8: Distribution of Cost for the 2006 Biennial Congress of SAFE Alumni Association of Ghana

<table>
<thead>
<tr>
<th>Item</th>
<th>Amount (₦)</th>
<th>Amount (US$)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transportation Allowance and fuel</td>
<td>29,107,000.00</td>
<td>3,044.35</td>
</tr>
<tr>
<td>Meals</td>
<td>16,526,000.00</td>
<td>1,728.48</td>
</tr>
<tr>
<td>Stationery and supplies</td>
<td>3,653,000.00</td>
<td>382.07</td>
</tr>
<tr>
<td>Entertainment and Publicity</td>
<td>4,800,000.00</td>
<td>502.04</td>
</tr>
<tr>
<td>Accommodation</td>
<td>6,242,000.00</td>
<td>652.86</td>
</tr>
<tr>
<td>Communication</td>
<td>575,000.00</td>
<td>60.14</td>
</tr>
<tr>
<td>Preparatory meetings</td>
<td>8,080,000.00</td>
<td>845.10</td>
</tr>
<tr>
<td>Newsletter</td>
<td>4,900,000.00</td>
<td>512.50</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>73,883,000.00</strong></td>
<td><strong>7,727.54</strong></td>
</tr>
</tbody>
</table>

Source: Case Study on SAFE Graduates in the University of Cape Coast, Dec.2007.

2.5.6 Programme of Activities and Achievements

The Association has conducted both national executive and regional meetings. It has also successfully held three (3) biennial congresses in 2002, 2004 and 2006. The first congress was held in Cape Coast and the rest in Kumasi.

Other major achievements include:
- Formation of regional executive boards,
- Launching of a newsletter, *The Extensionist*,
- Promulgation of a constitution for the Association,
- Opened a bank account,
- Commenced the process of registering the Association with the Registrar-General’s department, and
- Assisted with the implementation of Supervised Enterprise Projects by students in the SAFE Programme at both UCC and KAC.

2.5.7 Involvement of Graduates in Alumni and Professional Associations

Few of the members indicated they belong to international or local professional associations. The associations mentioned are Association of International Agricultural and Extension Education (AIAEE), Ghana National Agricultural Technical Class Association (GNATCA), Veterinary Medical Technical Association (VEMTAG), Teachers in Agricultural Institutions

Except 18 graduates who felt there was no need to form the SAFE Alumni Association, Ghana, 257 out of the 275 graduates who responded to the questionnaire felt there was a dire need for the formation of SAFE alumni association. Reasons cited included to:
1. Share ideas on technical experiences on agriculture for development of Ghana,
2. Network and seek the welfare of members,
3. Enrich SAFE curricula, and contribute to physical and financial sustainability of the programme,
4. Enhance the performance of members,
5. Promote the tenets of SAFE programme outside the UCC and KAC, and
6. Influence government policy on agriculture.

However, majority of the graduates described themselves as non-active members of SAFE Alumni Association, Ghana. Of the close to 500 members at the time of their last biennial congress held at Kwadaso in Ghana on August 4, 2006, only 160 members participated in the activities. With the exception of the Northern Region of Ghana where the alumni met once, the proposed statutory regional and district meetings have not seen the light of the day. None of the graduates have paid dues to the Association.

2.5.8 Major Threats/Problems to the Sustainability of SAFE Alumni Association of Ghana

Among the key banes the Association faces currently are:
- Apathy on the part of members and some executives (lack of commitment),
- Inability/unwillingness to pay membership dues,
- Geographical locations of members make it difficult to easily meet as group, and
- Inadequate database on which to organize Association’s programmes and activities.

2.6 Recruitment and Retention of Academic Faculty for SAFE Programmes

2.6.1 Strength of Teaching Staff

The experiential learning approach of the SAFE programme is staff-intensive and requires competent and committed staff. The University of Cape Coast has the requisite staff strength. The number of highly qualified and competent staff to teach and supervise students in all aspects of the programme is adequate for its smooth running.

Table 9 shows the number of staff involved in teaching and supervision of Students in the SAFE programme in 2006/2007 academic year. There are no female senior members in the Department of Agricultural Economics and Extension at UCC. The other female senior members from other departments in the School of Agriculture (e.g. Department of Animal Science and Crop Science) have assisted in supervision of SEPs in the past.

The Diploma programme at Kwadaso currently has only two full-time staff with Masters degree (Table 10). Although five (5) teaching staff are at various stages of completion of their Masters degree programmes, the number is inadequate to ensure smooth running of the SAFE programme. More staff with the Masters degree or better will be required to run the KAC
Diploma programme. The issue of high staff attrition rate will need to be addressed. The problem has to do with very poor conditions of service in the civil service (MoFA, Ghana)

Table 9: Distribution of Teaching Staff by Area of Speciality and Rank at UCC

<table>
<thead>
<tr>
<th>Department</th>
<th>Rank</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crop Science</td>
<td>Associate Professor</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Senior Lecturer</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Lecturer</td>
<td>1</td>
</tr>
<tr>
<td>Animal Science</td>
<td>Associate Professor</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Senior Lecturer</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Lecturer</td>
<td>2</td>
</tr>
<tr>
<td>Economics and Extension</td>
<td>Associate Professor</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Senior Lecturer</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Lecturer</td>
<td>5</td>
</tr>
<tr>
<td>Soil Science</td>
<td>Associate Professor</td>
<td>2</td>
</tr>
<tr>
<td>Entomology &amp; Wildlife</td>
<td>Senior Lecturer</td>
<td>1</td>
</tr>
<tr>
<td>Agricultural Engineering</td>
<td>Senior Lecturer</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Lecturer</td>
<td>2</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>27</strong></td>
</tr>
</tbody>
</table>

Source: Case Study on SAFE Graduates in the University of Cape Coast, Dec.2007.

Table 10: Distribution of Teaching Staff of the SAFE Programme at KAC by Department and Rank as of 2006/2007 Academic Year

<table>
<thead>
<tr>
<th>Department</th>
<th>Educational Qualification</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crop Science</td>
<td>Masters (Part time)</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>B.Sc. (Masters in progress)</td>
<td>1</td>
</tr>
<tr>
<td>Animal Science</td>
<td>Masters</td>
<td>1</td>
</tr>
<tr>
<td>Economics and Extension</td>
<td>Masters</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>B.Sc. (Masters in progress)</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>B.Sc.</td>
<td>2</td>
</tr>
<tr>
<td>Agricultural Engineering</td>
<td>Masters</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>B.Sc. (Masters in progress)</td>
<td>1</td>
</tr>
<tr>
<td>Science</td>
<td>B.Sc. (Masters in progress)</td>
<td>2</td>
</tr>
<tr>
<td>Home Economics</td>
<td>B.Sc.</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>12</strong></td>
</tr>
</tbody>
</table>

Source: Case Study on SAFE Graduates at Kwadaso Agricultural College Dec.2007.

2. 6.2 Challenges: Recruitment and Retention of Academic Faculty

- One challenge is that the principal consideration for hiring and retaining staff is the Full Time Equivalence (FTE) per member. That translates into teaching credit load only as per
the time-table. Other critical academic and non-academic duties/responsibilities such as counselling students, supervision, serving on committees and boards are not counted.

- Support for short-term academic staff development in terms of funding for workshops, seminars and short courses. This is not easily forthcoming.
- Large student numbers in other programmes at UCC where lecturers teach put a lot of pressure on staff involved in SAFE programme.
- Motivation of staff from internally generated funds. The financial policy restrictions that make it difficult to reward committed staff who teaches in the SAFE programme directly using incomes generated by the Sasakawa Guest Centre do affect the programme adversely.
- Inadequate staff accommodation and office space.
- Unattractive conditions of service.
- Civil Service bureaucratic red tape and bottlenecks negatively impact on staff recruitment. KAC faces major difficulty in staff recruitment. The Principal does not have autonomy to hire teaching staff. This is done by civil service in Accra.

2.6.3 Strategies for Recruitment and Retention of Academic Faculty

- Staff development. All lecturers with M.Phil degree in the Department of Agricultural Economics and Extension have enrolled in Ph.D. programmes at UCC or elsewhere. Staff at KAC have also enrolled in Masters programmes.
- Provision of enabling environment at UCC to motivate the staff to continue to effectively nurture the programme.
- All the full-time staff have been provided with computers and offices from internally generated funds.
- Involvement of teaching staff in the SAFE programme in decision-making of the programme is a healthy one.
- Generation of revenue to motivate and retain staff. The Department of Agricultural Economics and Extension, (hence the SAFE programme at UCC) mounted M.Sc. Programme in NGO Management and Studies. Proceeds have been used to motivate both teaching and non-teaching staff.

2.7 Women Intake in the SAFE Programme

2.7.1 Number of Women who participated in SAFE Programmes in Ghana

Table 11 shows the sex distribution of graduates in SAFE programme. Although the philosophy of the programme is, among other things, to address the gender disparity against women, their participation in the programme is still woefully low. The overall ratio of female to male is 1:4. The ratio of graduates in the B.Sc. programme is 1:5 while that of the Diploma is 1:4.

2.7.2 Factors Contributing to Low Female Enrolment in the SAFE Programmes

- The number of women mid-career staff in the Ministry of Food and Agriculture is very low. As a result, the eligible number of female candidates for the SAFE programmes is equally low.
Most of the women do not have the requisite passes in science and mathematics to qualify for direct enrolment into the programmes. This problem goes back to the second cycle of education where most girls are not interested in the sciences.

Inadequate women-based sponsorship packages to attract more females into agricultural programmes.

Table 11: Distribution of Graduates and Current Students of the SAFE programme by Sex

<table>
<thead>
<tr>
<th>Year of Graduation</th>
<th>Programme</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B.Sc.</td>
</tr>
<tr>
<td></td>
<td>Male</td>
</tr>
<tr>
<td>1996/1997</td>
<td>19</td>
</tr>
<tr>
<td>1997/1998</td>
<td>23</td>
</tr>
<tr>
<td>1998/1999</td>
<td>17</td>
</tr>
<tr>
<td>1999/2000</td>
<td>20</td>
</tr>
<tr>
<td>2000/2001</td>
<td>41</td>
</tr>
<tr>
<td>2001/2002</td>
<td>22</td>
</tr>
<tr>
<td>2002/2003</td>
<td>26</td>
</tr>
<tr>
<td>2003/2004</td>
<td>24</td>
</tr>
<tr>
<td>2004/2005</td>
<td>25</td>
</tr>
<tr>
<td>2005/2006</td>
<td>18</td>
</tr>
<tr>
<td>2006/2007</td>
<td>19</td>
</tr>
<tr>
<td>*2007/2008</td>
<td>19</td>
</tr>
<tr>
<td>*2008/2009</td>
<td>19</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td><strong>292</strong></td>
</tr>
</tbody>
</table>

* Current Students in the SAFE programme.
Source: Case study of SAFE programmes in Ghana, December 2007.

2.7.3 Strategies to increase intake of Women

- UCC has a gender sensitive admissions policy in place whereby in-take cut-offs for females are lower than those for males. Since there are not enough eligible female candidates for the SAFE programme, the policy is of little help to them.
- The School of Agriculture has mounted a remedial programme to upgrade potential students (especially females) who lack the required passes in sciences to become eligible.

2.8 Nature and Extent of Stakeholder Participation in the SAFE Programme

The full and active participation of all key stakeholders in the SAFE programmes at KAC and UCC is an important ingredient for the sustainability of these programmes. In particular, there is need to forge partnerships between each of the two educational institutions and the other key stakeholders. This is paramount. Such engagements would engender and help maintain the much needed environment for greater collaboration so as to contribute fresh perspectives and resources that can create new and effective strategies to sustain the programme. This section takes an inventory of key stakeholders and describes the nature and level of their participation and the constraints and strategies for sustaining the SAFE programme.

2.8.1 Inventory of Stakeholders

A number of key stakeholders have actively participated in the SAFE programmes over the decade. They include:
• International organizations such as Sasakawa Africa Association (and its affiliates), and Winrock International Institute for Agricultural Development,
• University of Cape (Faculties and Departments) and Kwadaso Agricultural College,
• Bilateral agencies such as USAID, German Technical Agency for Development (GTZ),
• Non Governmental Organizations (World Vision International, Technoserve, Heifer International, PROLINOVA Southern Ghana),
• Parastatal agencies (Agricultural Development Bank),
• District Assemblies,
• Private sector (large or commercial agribusiness enterprises, farmers, market-women),
• Ministry of Food and Agriculture (extension professionals, prospective students),
• Students,
• Graduates,
• Other Universities (SAFE and non-SAFE) and
• Ministries, Departments and Agencies (MDAs).

2.8.2 Nature and Level of Participation

The nature and level of participation of various stakeholders are discussed below.

2.8.2.1 Sasakawa Africa Association (SAA)

SAA is a non-governmental organization that was established in 1986 and registered in Geneva, Switzerland. It manages Sasakawa Global 2000 (SG2000) agricultural projects in selected African countries. In 1992, it launched the Sasakawa Africa Fund for Extension Education (SAFE) to commence the innovative B.Sc. and Diploma Extension programmes. In 2003 SAFE was legally separated from SAA and registered as a non-profit humanitarian association in Geneva, Switzerland.
• SAA provided the start-up financial support to University of Cape Coast to commence the programmes at UCC and KAC. At UCC.
• At UCC it contributed to the initial cost of building Sasakawa student hostel, conferences centre, offices, technology village; provided the grant for construction of Sasakawa restaurant and loan for development of the Sasakawa chalets (see pictures in Appendix XVI) and donated the three vehicles (a 30-seater coaster bus, and 2 double-cabin pick up trucks).
• At KAC it also contributed to the rehabilitation and refurbishment of the infrastructures at KAC (Martinson Hall, facelift of the campus, furniture, farm structures, computer and photocopier room, project office, laboratory and SAFE Alumni secretariat) (see pictures in Appendix XIV).
• Provision of teaching and learning materials such as computers and accessories, audio-visuals and books to UCC and KAC.
• Sponsorship of workshops and conference (local and international) for staff and other stakeholders for development of programme.
• Partial scholarships for students and staff training/development.
• Facilitating the development of MOU among SAFE institutions.
• SG2000 promotes productivity enhancing agricultural technologies. SG2000 has provided financial and material resources for introduction of technologies through the SEPs.

2.8.2.2 Winrock International Institute for Agricultural Development

Winrock International is a non-profit NGO based in Little Rock, Arkansas, USA.

25
Winrock has partnered with SAFE in the design and implementation of the SAFE initiative. In the initial 11 years of the programme, it sent an agricultural extension specialist to participate in the curriculum development and revitalization, teaching, monitoring and evaluation activities in Ghana.

Winrock International has also provided scholarships for some females students in the SAFE programme.

2.8.2.3 Bilateral Agencies

The United States International Development Agency (USAID) donated US$50,000 towards the construction of Sasakawa Centre.

The German technical agency for development (GTZ) provided sponsorship of US $1000 per year for three consecutive years towards the implementation of SEPs.

2.8.2.4 The University of Cape (Faculties and Departments) and Kwadaso Agricultural College

The SAFE Programmes are housed at UCC and KAC.

The University Administration at UCC allocated funds for the initial capital investment for the construction of the Sasakawa Centre and continues to provide financial support through the School of Agriculture budget.

The Directorate of Physical Development and Estate Management has been instrumental in the preparation of the architectural designs for the construction of the Sasakawa student hostel, chalets, restaurant and conference room and offices. (Copies of the architectural drawings are attached as Appendix XVII). The Directorate also provides professional expertise in the repair and maintenance of the structures in the Centre.

The Department of Agricultural Economics and Extension of the School of Agriculture has planned, implemented the SAFE programme over the years. Other Departments in the School of Agriculture and other Faculties in UCC have provided the necessary teaching and supervision support for the SAFE programme.

With reference to the Diploma in Extension programme, KAC performs similar functions as described above. KAC is fully affiliated to University of Cape Coast. KAC interviews and selects students into the programme. It issues letters of admission but UCC performs the matriculation ceremony in Cape Coast. KAC lecturers teach the students in Kumasi.

UCC backstops to lend support to the teaching staff at KAC. UCC also assists in the upgrading of teaching skills of lecturers at KAC.

2.8.2.5 The Ministry of Food and Agriculture (MoFA)

It is one of the main/principal stakeholders of the SAFE Programme. Its contribution has been as follows:

- MOFA requested for the SAFE programme to upgrade its mid-career staff.
- Participates in the design, implementation and evaluation of the SAFE curriculum.
- MOFA is an employer of graduates and prospective students of the SAFE programme.
• Contributes to admission policies and select students into the programme.
• Provides resources for maintenance of structure for running of programme.
• Provides teaching learning materials (computers and their accessories, a television set and projectors, books) and library facilities.
• Provides vehicles for off-campus SEPs.
• Provides sponsorships for implementation of SEPs.

2.8.2.6 Non-Governmental Organizations

• World Vision International, Technoserve, Heifer International and PROLINOVA Southern Ghana have contributed towards the implementation of SEPs. PROLINOVA Southern Ghana has signed an MOU with UCC to assist students to introduce farmer-developed innovations for two years.
• Over the years, a local NGO (Development Assistance for School Farms [DASFA]) has enriched the curriculum by sharing their experiences with students in the current issues course of the programme.

2.8.2.7 Parastatal Agencies

• The Agricultural Development Bank, for example, has financed the implementation of a number of off-campus SEPs.
• Resource persons from a number of government agencies have contributed to the development the SAFE programme through their participation in curriculum design and revisions. Also they have made presentations at the sessions in the Current Issues on Agricultural Extension and Technology course over the years.

2.8.2.8 District/Municipal/Metropolitan Assemblies

• Sponsorship for implementation of SEPs. Graduates estimated that about 5% of individual SEPs budget have been provided by some local government Assemblies.
• Promotion of SEPs in the communities. Plans are underway for the Asante Akim District Assembly to purchase a plant for production of cassava composite floor. This project was conceived after a graduate introduced a SEP titled “Promoting cassava utilization and processing” in the district to reduce cassava post-harvest losses.

2.8.2.9 The Private Sector

The private sector includes large and commercial agribusiness enterprises, farmers, and market women.
• The commercial agribusiness enterprises have over the years provided limited sponsorship for implementation of SEPs.
• Farmers (small and large scale) and farm families have been the beneficiaries of SEPs.
• They have contributed resources for the implementation of SEPs and participated in the curriculum development and reviews.
• Furthermore they serve as resource persons and allowed their farms to be used as demonstration plots.

• Individual farmers (including National Best Farmers) and farmer associations have also served as resource persons in the Current Issues course taught in the Agricultural Extension curriculum at UCC.

2.8.2.10 Students

Students of the SAFE programme have a primary stake in the implementation of the programme. It was designed for them.

• They enrich discussions in class by sharing invaluable experiences and lessons.

• Students have, over the years, concretized the SEP concept by designing and implementing projects in the areas of operation.

• They provide financial sponsorships for both on-campus and off-campus SEPs.

• Student provided labour during the construction of Sasakawa Centre (Hostel).

• They pay fees to run the programmes. Fees are paid towards accommodation, academic facility, medical and examination and student dues. For example, the 2007/2008 academic year, each Ghanaian MoFA fresh students paid €5,573,000 (US$583) while the continuing students paid €4,333,000.00 (US$ 453) each. Each of the fresh and continuous students non MOFA who were admitted on fee paying basis paid €18,000,000.00 (US$1,883.00).

• International students enrolled in SAFE programme at UCC pay a total of US$10,850.00 for two years. The itemized fees for international students are presented in Table 12. The US$ 3000 is paid by each international student towards SEP supervision in his/her country. Accommodation for international students in the hall of residence is about US$100 for paired room and US$ 200 for single occupancy.

Table 12: Schedule of Fees Paid by individual International B.Sc. Agricultural Extension Student

<table>
<thead>
<tr>
<th>Details</th>
<th>Amount payable(US$)</th>
</tr>
</thead>
<tbody>
<tr>
<td>*Admission forms Fee</td>
<td>50</td>
</tr>
<tr>
<td>Tuition</td>
<td>3600</td>
</tr>
<tr>
<td>Examination</td>
<td>100</td>
</tr>
<tr>
<td>Registration fees</td>
<td>50</td>
</tr>
<tr>
<td>Medical Services</td>
<td>100</td>
</tr>
<tr>
<td>Deposit against breakages</td>
<td>50</td>
</tr>
<tr>
<td>Sub total</td>
<td>3,950</td>
</tr>
<tr>
<td>*SEPs Fee paid by SAFE per foreign students</td>
<td>3,000</td>
</tr>
<tr>
<td>Total for 2 years</td>
<td>10,850</td>
</tr>
</tbody>
</table>

2.8.2.11 Graduates

Each graduate (alumnus) has a professional obligation to belong to the SAFE Alumni Association, Ghana. Such an obligation when translated into commitment and active participation in the association would help promote and support the SAFE programme. To date some alumni have served as:
- Co-supervisors during the implementation of SEPs in the various communities across Ghana.
- Resource persons/guest speakers to make presentations at the sessions on current issues course under the SAFE programme at UCC.

2.8.2.12 Other Universities and Research Institutions

Other Universities include public universities in Ghana and SAFE affiliated Universities in sub-Saharan Africa.
- Ensuring academic quality assurance (external moderation of examination),
- Participation in SAFE programme curriculum design and implementation of the SAFE programme,
- Review of the curriculum for the SAFE programme,
- Academic exchange through sabbatical,
- Visits, workshops and conferences to share experiences,
- The research institutions such as Crop Research Institute, Ghana have provided technical knowledge on innovations and supervised students during implementation of the SEPs. Experts from the above institutions have served as resource persons during sessions on the Current Issues on extension and technology course under the SAFE programme at UCC.

2.8.2.13 Ministries, Departments and Agencies (MDAs)

Ministries, agencies, and departments such as Forestry Department, Fisheries Department, Ministry of Health and Ministry of Environment have contributed over the years to the delivery of the SAFE programme especially at UCC. Their representatives serve as resource persons in the Current Issues on extension and technology course at UCC.

2.8.3 Constraints to Full Participation in the SAFE Programme

The following are regarded as major constraints to the full and active participation of all key stakeholders in the SAFE programmes:
- The inadequate follow up on the activities that brought the various stakeholders together.
- No formally signed Memoranda Of Understanding (MOU) in some of the key activities that were meant to ensure involvement of stakeholders. For example, in some cases, resourceful students through their own initiatives have sought and obtained financial assistance and logistic support from bilateral agencies, NGOs or District Assemblies during SEPs’ implementation. In most cases students do not inform the University to develop MOU with such stakeholders to follow up on the activities.
- Inadequate resources to ensure full participation of major stakeholders. The resources and programmes have been limited to activities during the planning and implementation of off-campus SEPs. The resources and programmes available to publicise SAFE through communication are unavailable.
• Transfer of officers/personnel who have initiated partnership and non commitment or interest of others in SAFE programme activities.

2.8.4 Strategies for Enhancing Full Participation

• Participation of stakeholders in the design, implementation, monitoring and review of curriculum and related activities of SAFE programme.
• Academic exchange through sabbatical exchange.
• Visits, workshops and conferences to share experiences and lessons on SAFE programmes with stakeholders.
• Signing of formal MOUs with other universities and bilateral organizations to promote SAFE programmes.
• Development of polo shirts and caps to advertise SAFE programme.

2.9 The Participation of Government of Ghana (GoG) in the SAFE Programme

The participation of the GoG in the SAFE programme is discussed under the following subheadings.

2.9.1 Contribution to Construction of Facilities (class rooms, offices, hostel, offices
restaurant and chalets)

• The GoG financial support for the SAFE programme came indirectly through, first, MoFA's initial contribution of US$20,000 towards the construction of Sasakawa Centre complex. Secondly, the University of Cape Coast’s US$ 61,600 also came from GoG sources.
• The labour involved in the architectural drawings, supervision and construction of the facilities at UCC were paid indirectly by the GoG through the UCC.
• The existing classrooms and academic infrastructure at UCC and KAC have been put up by GoG.
• The GoG, through MoFA, has since the commencement of the programme provided assistance in the form of instructional equipment under the Agricultural Sub-Sector Investment Programme (AgSSIP) and National Agricultural Extension Project (NAEP).

2.9.2 Payment of Salaries and Benefits of Lecturers and Support Staff

On behalf of GoG, the KAC and UCC pay the salaries and other emoluments of academic and non-academic staff that support the two SAFE programmes in various forms.

• The GoG, for example, pays the salaries of the 27 academic staff and 24 supporting non academic staff that are assisting in the running of SAFE and other programmes in 2007/2008 academic year at UCC. The GoG spent an estimated US$218,241.68 per annum on basic income of the category of staff mentioned above as of December 2007. Based on percentage (39.8% for Lecturers and 35.1% for supporting staff) of time spent on SAFE programme only, the amount translates into US$85,243.51 per annum (Table 13).

The GoG pays other emoluments for senior members at UCC as follows:

■ Research and book allowance (US$2,302) for each of the senior academic staff member annually.
■ Special allowance (160% of basic annual income). This translated into US$867.58 per month for Senior Lecturer category for the month of December 2007.
■ Vehicle allowance of US$52.30 per month for Senior Members with cars.
- Electricity rebate of US$30.72 per month.
- Duty allowance of 15% of annual basic salary for those with special responsibilities. GoG pays the SAFE Coordinator a duty allowance of US$82.18 per month.
- Superannuation which is 12.5% of annual basic income.
- US$52.30 rent allowance is paid for those in their own accommodation. Staff in University accommodation pay subsidized rates depending on type of accommodation.
- Commuting allowance for those who stay off-campus. The cedi equivalent of fifteen (15) gallons for those with cars and 7.5 gallons for those without cars.

Table 13: Distribution by Rank of Annual Basic Income of Staff involved in SAFE Programme at UCC, Ghana in the 2007/2008 Academic Year

<table>
<thead>
<tr>
<th>Category of staff</th>
<th>Number</th>
<th>Annual Basic Income range (¢)</th>
<th>Average of Annual Basic Income (US $)</th>
<th>* Average of Annual Basic Income (US $)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Associate Professors</td>
<td>6</td>
<td>73,536,964 - 77,871,890</td>
<td>47,508.27</td>
<td>18,908.29</td>
</tr>
<tr>
<td>Senior Lecturers</td>
<td>11</td>
<td>62,857,624 - 73,091,336</td>
<td>78,205.13</td>
<td>31,125.64</td>
</tr>
<tr>
<td>Lecturers</td>
<td>10</td>
<td>49,327,818 - 61,830,162</td>
<td>58,130.94</td>
<td>23,136.11</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td></td>
<td></td>
<td>183,844.34</td>
<td>73,170.05</td>
</tr>
<tr>
<td>Administrative Assistant</td>
<td>1</td>
<td>28,018,382 - 33,196,812</td>
<td>3,201.30</td>
<td>1,123.66</td>
</tr>
<tr>
<td>Senior Clerk</td>
<td>1</td>
<td>20,291,360 - 24,324,946</td>
<td>2,333.24</td>
<td>818.97</td>
</tr>
<tr>
<td>Messenger/cleaners</td>
<td>4</td>
<td>8,052,122 - 11,343,666</td>
<td>4,057.27</td>
<td>1,424.10</td>
</tr>
<tr>
<td>Photocopier Grade II</td>
<td>1</td>
<td>13,222,668 - 16,385,888</td>
<td>1,548.40</td>
<td>543.49</td>
</tr>
<tr>
<td>Mower Operator I</td>
<td>1</td>
<td>13,222,668 - 16,385,888</td>
<td>1,548.40</td>
<td>543.49</td>
</tr>
<tr>
<td>Sanitary worker</td>
<td>3</td>
<td>11,696,786 - 14,495,816</td>
<td>4,109.29</td>
<td>1,442.36</td>
</tr>
<tr>
<td>Porter</td>
<td>2</td>
<td>13,222,668 - 16,385,888</td>
<td>3,096.81</td>
<td>1,086.98</td>
</tr>
<tr>
<td>Assistant Technician</td>
<td>2</td>
<td>20,291,360 - 24,324,946</td>
<td>4,666.49</td>
<td>1,637.94</td>
</tr>
<tr>
<td>Overseer Grade I</td>
<td>1</td>
<td>10,991,174 - 13,634,178</td>
<td>1,287.80</td>
<td>452.02</td>
</tr>
<tr>
<td>Mason Grade II</td>
<td>1</td>
<td>10,991,174 - 13,634,178</td>
<td>1,287.80</td>
<td>452.02</td>
</tr>
<tr>
<td>Headman</td>
<td>1</td>
<td>10,024,920 - 12,436,346</td>
<td>1,174.63</td>
<td>412.30</td>
</tr>
<tr>
<td>Labourer</td>
<td>6</td>
<td>8,052,122 - 11,343,666</td>
<td>6,085.91</td>
<td>2,136.15</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td></td>
<td></td>
<td>34,397.34</td>
<td>12,073.47</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td>218,241.68</td>
<td>85,243.51</td>
</tr>
</tbody>
</table>

Source: Human Resources Directorate, UCC and Case Study Data, December 2007
* Based on estimated percentage of time (39.8% for Lecturers and 35.1% for Supporting Staff) spent on SAFE programme only.
The support staff also receive the following from GoG:

- Special allowance (5% of basic annual income).
- Vehicle allowance (US$52.30 per month for cars, US$7.84 per month for bicycle and US$20.92 per month for motorbikes).
- Social Security contribution of 12.5% of basic annual income.
- Electricity rebate of US$9.33 per month.

2.9.3 Payment of Salaries and Benefits of Students

The MOFA students in the SAFE programmes at UCC and KAC are on study leave with full pay. Since the year 2000, MOFA employees in the SAFE programme in Ghana have numbered about 130 per year on the average.

On behalf of GoG, MoFA paid the salaries of graduates and continues to do so for the current batches of students under the programme.

- The students could not provide the levels of their annual basic salaries since they did not have their pay slips with them during the data collection phase of this study. Granted that their grades range from a minimum of Technical Grade 1 to a maximum of Principal Production Officer, then an estimated average annual basic salary of €36,129,424.40 (US$3,778.83) is paid by GoG per student. Currently, there are 130 MOFA employees at UCC and KAC. Therefore, GoG is now contributing about US$491,248.30 per annum towards the payment of salaries of these students.

- GoG also pays 12.5% of basic annual salary per student as its social security contribution.

- Vehicle allowance of €100,000.00 (US$10.46) per month is paid for those with motorbikes.

- The GoG partially finances students’ SEPs as and when funds are available. For example, in the last three years, each student received €2,000,000.00 (US$209.18) towards the implementation of SEPs under the Agricultural Sub Sector Investment Programme (AgSSIP). The AgSSIP ended in 2007.

2.9.4 Contribution to Administration and Management Cost

The administrative and management cost for the Department of Agricultural Economics and Extension from 2005 to 2007 fiscal year is presented in Table 14. An average of US$ 7,824.55 per year was spent in the management and administration of the programmes of the Department. Apart from SAFE programme (B.Sc. Agricultural Extension), the Department runs Graduate programmes (PhD Agricultural Extension, M.Phil. Agricultural Extension, M.Phil Agricultural Economics, M.Sc. NGO Management & Studies). Moreover, it supports other undergraduate programmes (e.g. BSc. Agricultural Science, B.Sc. Animal Health) of the School of Agriculture.

The administrative and management costs presented in Table 14 are not borne solely by the GoG. The costs are also financed from other incomes generated from the following sources:

- Sasakawa students hostel and Guest Centre and
- Department’s share of the Academic and Facility User Fees (AFUF) charged to students in the SAFE programme and School of Agriculture.
Table 14: The Administrative and Management Costs for Running the Department of Agricultural Economics and Extension, UCC from 2005 to 2007 Fiscal Year

<table>
<thead>
<tr>
<th>Cost Item</th>
<th>Cost (¢)</th>
<th>Average Cost for 2005-2007 (¢)</th>
<th>Average Cost for 2005-2007 (US $)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2005</td>
<td>2006</td>
<td>2007</td>
</tr>
<tr>
<td>Telephones</td>
<td>549,237</td>
<td>599,725</td>
<td>988,000</td>
</tr>
<tr>
<td>Printing &amp; stationery</td>
<td>1,573,695</td>
<td>15,770,000</td>
<td>1,035,170</td>
</tr>
<tr>
<td>Materials &amp; Consumables</td>
<td>9,126,300</td>
<td>8,532,000</td>
<td>9,738,000</td>
</tr>
<tr>
<td>Travel &amp; Transport</td>
<td>526,670</td>
<td>12,175,000</td>
<td>7,697,000</td>
</tr>
<tr>
<td>Departmental Transport charges</td>
<td>9,045,327.30</td>
<td>16,648,997.43</td>
<td>9,152,600</td>
</tr>
<tr>
<td>Repairs &amp; replacement</td>
<td>1,850,000</td>
<td>20,427,890</td>
<td>6,215,000</td>
</tr>
<tr>
<td>Books &amp; periodicals</td>
<td>3,080,000</td>
<td>2,722,000</td>
<td>250,000</td>
</tr>
<tr>
<td>Sitting Allowance</td>
<td>4,575,000</td>
<td>8,650,000</td>
<td>4,950,000</td>
</tr>
<tr>
<td>Postages</td>
<td>29,500</td>
<td>173,000</td>
<td>-</td>
</tr>
<tr>
<td>Equipment</td>
<td>12,345,200</td>
<td>-</td>
<td>8,026,500</td>
</tr>
<tr>
<td>Furniture</td>
<td>1,364,000</td>
<td>-</td>
<td>400,000</td>
</tr>
<tr>
<td>Subsistence-Refreshment</td>
<td>3,189,000</td>
<td>5,341,000</td>
<td>2,077,000</td>
</tr>
<tr>
<td>Maintenance of building</td>
<td>-</td>
<td>110,000</td>
<td>-</td>
</tr>
<tr>
<td>Electrical repairs &amp; Installation</td>
<td>-</td>
<td>287,500</td>
<td>3,150,000</td>
</tr>
<tr>
<td>Subscription</td>
<td>-</td>
<td>100,000</td>
<td>-</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Accounts Office, School of Agriculture, UCC.

2.9.5 Annual Estimated Cost of the Contributions of GoG to SAFE Programme at UCC

It is estimated that GoG has made a direct contribution of US$101,600.00 towards the infrastructural development and donation of equipment for the SAFE programme at UCC. This amount is made up of US$81,600 towards the construction of Sasakawa Centre complex building and US$20,000.00 worth of teaching equipment and materials through MoFA. In 2007, GoG contributed US$511,016.12 towards the payment of salaries and other emoluments of staff and students and other recurrent costs on SAFE related activities only (Table 15).

Table 15: Annual Estimated Recurrent Cost Contributions of GoG to SAFE Programme at UCC

<table>
<thead>
<tr>
<th>Description of Cost Items</th>
<th>US$</th>
</tr>
</thead>
<tbody>
<tr>
<td>*Running costs for Department</td>
<td>947.7</td>
</tr>
<tr>
<td>Salaries for 50 student per annum</td>
<td>188,941.65</td>
</tr>
<tr>
<td>Benefits for 50 student per annum</td>
<td>61,406.03</td>
</tr>
<tr>
<td>SEPs Support for Students</td>
<td>10,100.00</td>
</tr>
<tr>
<td>*Salaries of 27 Lecturers involved in Teaching and Supervision of SEPs per annum</td>
<td>73,170.07</td>
</tr>
<tr>
<td>*Benefits of 27 Lecturers involved in Teaching and Supervision of SEPs per annum</td>
<td>162,100.24</td>
</tr>
<tr>
<td>*Salaries of Supporting staff per annum (24 Administrative, Technicians, Labourers, etc)</td>
<td>12,073.47</td>
</tr>
<tr>
<td>*Benefits of Supporting staff per annum (24 Administrative, Technicians, Labourers, etc)</td>
<td>2,276.96</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>511,016.12</strong></td>
</tr>
</tbody>
</table>

Source: Case Study on SAFE Graduates in the University of Cape Coast, December 2007.
* Based on estimated percentage of time (39.8% for Lecturers and 35.1% for Supporting Staff) spent on SAFE programme only.
2.10 Estimated Cost for Funding SAFE-Type B.Sc. Agricultural Extension Programme at UCC in Ghana

An attempt was made to estimate the cost for funding the establishment of SAFE-Type B.Sc. Agricultural Extension degree programme similar to the one at UCC, Ghana. Costs figures are as of 2007. The estimated cost is US$1,148,377.63. The eighteen cost components were included. (Refer to Table 16).

Table 16: Estimated Cost for Funding SAFE-Type B.Sc. Agricultural Extension Programme in Ghana

<table>
<thead>
<tr>
<th>Description of Cost Items</th>
<th>US$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Affiliation Costs</td>
<td>1000.00</td>
</tr>
<tr>
<td>Sasakawa Hostel (25 Rooms), 8 Offices and a Conference Hall</td>
<td>231,600.00</td>
</tr>
<tr>
<td>Sasakawa Restaurant and Chalets (16 Rooms)</td>
<td>130,000.00</td>
</tr>
<tr>
<td>Classrooms and Laboratories</td>
<td>100,000.00</td>
</tr>
<tr>
<td>*Running costs for Department</td>
<td>947.70</td>
</tr>
<tr>
<td>Equipment/Materials</td>
<td></td>
</tr>
<tr>
<td>• 10 Desktop Computers and accessories</td>
<td>12,000.00</td>
</tr>
<tr>
<td>• 4 Laser Printers (including I colour Printer)</td>
<td>1,500.00</td>
</tr>
<tr>
<td>• 2 laptops</td>
<td>3,000.00</td>
</tr>
<tr>
<td>• 1 LCD projector</td>
<td>2,000.00</td>
</tr>
<tr>
<td>• 2 Digital Video Camera</td>
<td>2,000.00</td>
</tr>
<tr>
<td>• 4 Digital Camera</td>
<td>2,000.00</td>
</tr>
<tr>
<td>• 200 Assorted Books and reading materials</td>
<td>20,000.00</td>
</tr>
<tr>
<td>• 1 Heavy duty photocopier</td>
<td>6,000.00</td>
</tr>
<tr>
<td>Sub-total</td>
<td>48,500.00</td>
</tr>
<tr>
<td>Supervised Enterprise Projects</td>
<td>13,393.04</td>
</tr>
<tr>
<td>Technology Village</td>
<td></td>
</tr>
<tr>
<td>• Start Up</td>
<td>20,000.00</td>
</tr>
<tr>
<td>• Running Cost</td>
<td>2,000.00</td>
</tr>
<tr>
<td>Sub-total</td>
<td>22,000.00</td>
</tr>
<tr>
<td>Two (2) Vehicles</td>
<td></td>
</tr>
<tr>
<td>• 1 pickup truck</td>
<td>22,000.00</td>
</tr>
<tr>
<td>• 1 4x4 land cruiser</td>
<td>48,000.00</td>
</tr>
<tr>
<td>Sub-total</td>
<td>70,000.00</td>
</tr>
<tr>
<td>Fees for an Average of 30 Ghanaian Students for 2 years</td>
<td>34,980.00</td>
</tr>
<tr>
<td>Fees for Average of 4 Foreign Students for 2 years</td>
<td>43,400.00</td>
</tr>
<tr>
<td>Salaries and benefits for 30 student per annum</td>
<td></td>
</tr>
<tr>
<td>• Salaries</td>
<td>113,364.99</td>
</tr>
<tr>
<td>• Benefits</td>
<td>36,843.62</td>
</tr>
<tr>
<td>• SEPs Support for Students</td>
<td>30,000.00</td>
</tr>
<tr>
<td>Sub-total</td>
<td>180,208.61</td>
</tr>
<tr>
<td>*Salaries of Academic Staff (27 Lecturers involved in Teaching and Supervision of SEPs) per annum</td>
<td>73,170.07</td>
</tr>
<tr>
<td>*Benefits of Academic Staff (27 Lecturers involved in Teaching and Supervision of SEPs) per annum</td>
<td>162,100.24</td>
</tr>
<tr>
<td>*Salaries of Supporting staff per annum (24 Administrative, Technicians, Labourers, etc)</td>
<td>12,073.47</td>
</tr>
<tr>
<td>*Benefits of Supporting staff per annum (24 Administrative, Technicians, Labourers, etc)</td>
<td>2,276.96</td>
</tr>
<tr>
<td>Biennial Alumni Congress &amp; Running Cost</td>
<td>7,727.54</td>
</tr>
<tr>
<td>Conferences and Seminars for Lecturers</td>
<td>15,000.00</td>
</tr>
<tr>
<td>Total</td>
<td>1,148,377.63</td>
</tr>
</tbody>
</table>

Source: Case Study on SAFE Graduates in the University of Cape Coast, December 2007
* Based on estimated percentage of time (39.8% for Lecturers and 35.1% for Supporting Staff) spent on SAFE programme only.
3.0 SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

3.1.1 Summary of Terms of Reference and Methodology

This section of the report is a synopsis of the Terms of Reference (TOR), methodology, and major findings. Essentially, the consultants were engaged to help SAFE trace and map out the pathway SAFE has travelled since 1993. Consultants were to answer a basic question: How well has the concept of a SAFE Programme for mid-career agricultural extensionists fared in Ghana since its inception? The answer to the above question was to bear directly on the following key components of the SAFE Programme in Ghana:

- Agricultural Extension Curricula at the B.Sc. and Diploma levels,
- Sasakawa Centre at UCC,
- Supervised Enterprise Projects (SEPS) at UCC and KAC,
- Technology Village, UCC,
- SAFE Alumni Association of Ghana,
- Female Participation in the SAFE Programme and
- Stakeholders and the SAFE Programme.

Consultants devised a multi-method strategy to gather data and information from graduates, staff/officials of the implementing institutions, employers, and stakeholders. They reviewed official documents mostly files. Interviews were also conducted.

Notwithstanding the two key constraints of inappropriate timing of the exercise within the context of Ghana and UCC where the consultants work and the limited time allotted for its completion, consultants determinedly carried out the assignment with enthusiasm and commitment.

3.2.1 Summary and Conclusions of the Major Findings

Major pointers as to achievements, challenges, and practical strategies for improvement are identified for each of the key components of the SAFE Programme.

3.2.1.1 Graduates of the Sasakawa Africa Fund for Extension Education (SAFE) Programmes

- SAFE has produced a critical mass of highly trained and qualified agricultural extension professionals to improve agricultural extension delivery in the sub-region. A majority of the graduates earned Second Class Upper Division.

- Most of the graduates have been promoted to the professional and the sub-professional categories. Quite a number more could have been promoted but for the bottlenecks which force some of graduates to remain at the technical class despite receiving higher academic certification.

- All graduates have received significant increments in their annual basic salaries since graduation from the SAFE programmes. Overall, the increments ranged from two-fold to six-fold in basic salary.
• Most of the graduates of the SAFE programmes are more likely to reach the maximum basic point before retirement. This would not have been possible if they have not participated in the SAFE programme.

• Graduates, by and large, have attained higher supervisory positions since graduation. They are now scheduled as project officers and serve as district development officers.

• Nearly all the graduates of the SAFE programme are still employed by their respective Ministries of Food and Agriculture. Many have, however, been transferred from the locations they were before enrolling in the SAFE programmes.

• It is significant to note also that nearly all the graduates have remained in the field of agricultural extension though a few have ventured into other areas of specialization but largely still agriculture related.

• A significant few of the graduates have progressed academically to the post-graduate level including the Ph.D. level. This is noteworthy considering the fact that prior to the SAFE programme all were going to hit dead-ends in their academic pursuits and consequently, little or no chance for upward career mobility.

• The SAFE programmes at both UCC and KAC have contributed immensely to changing the landscape of agricultural extension especially in Ghana in terms of the presence of an increasing number of females with the B.Sc. degree in that field of specialization. This has been a significant achievement and is worthy of note. Their number is still woefully small.

• In sum, it could be concluded that the SAFE programmes at UCC and KAC have made invaluable contributions to agricultural and rural development, especially in Ghana, since together they have produced a cadre of academically qualified and professionally competent extensionists.

3.2.1.2 The Supervised Enterprises Projects of Students

The SEPs constitute the nerve-centre of the B.Sc. and Diploma Agricultural Extension programme for mid-career extension staff in Ghana. Emphasis is placed on experiential learning which is derived from the vision, mission and strategic objectives of the SAFE programme.

• The two phases (on-campus and off-campus) of SEPs are coordinated by a committee that liaises with supervisors and co-supervisors to guide students during the conceptualization, design, the implementation and evaluation of the SEPs.

• A student spends an average estimated cost of US$1,045.92 to implement SEPs. The cost of supervision per student on off-campus SEPs is estimated at US$530.00 SEPs are sponsored from sources ranging from students, NGOs, banks, Metropolitan/Municipal/District Assemblies, beneficiary communities, Ministry of Food and Agriculture and SAFE.

• The challenges and constraints to SEPs’ implementation include how to promote the concept and gains, the mobilization of resources, sustaining the rigour among students, ensuring sustainability of field activities, financing and development of an effective evaluation criteria to measure experiential learning.
• The strategies to address the challenges include institutionalization of SEPs workshop; expansion of the facilities at the Sasakawa Guest Centre, proposal to raise funds to hold workshops for its major stakeholders and discussion with Ministry of Food and Agriculture on modalities to finance students’ SEPs.

• It could be concluded that the innovativeness of the SAFE programmes at UCC and KAC is the SEPs. The SEPs have continued to be problem-focused, hands-on laboratories and extended field-based experiential learning projects. The strategies put it in place to address the challenges points to a bright future for the SEPs. However, there is the need to continuously forge and strengthen partnerships within the institutions (UCC and KAC) with other stakeholders (universities, NGOs, bilateral etc) to sustain SEPs.

3.2.1.3 The Sasakawa Centre Complex

• Without a doubt, the concept of the Sasakawa Centre complex is a phenomenal one. Its income-generating units, namely the chalets, restaurant, conference facility, and student hostel have provided much needed funds that have been used to support of the SAFE programme at UCC.

• The Sasakawa Guest Centre has had a rather checkered performance over the past few years (2004-2006) with less than impressive average annual revenue.

• The guest chalets seemed to have performed at an even and steady rate but with room for improvement. On the other hand, with regard to the restaurant, there is gulf between the expected revenues and actual revenues due to mainly high running costs and low food prices.

• Unquestionably, it can be stated that the conference facility is underutilized and, therefore, not generating as much revenue as expected. In a week, for instance, many days will pass by without any major activity (such as conference, workshop or seminar) going on in the facility. There is need to devise plans that will maximize its use by attracting new and larger groups while not loosing older customers.

• Performance of the student hostel has been satisfactory as an income-generating unit. It is worthy to note that it does not only have limited occupancy, but also is managed under the general University policy as other halls of residence for undergraduate students, yet with cheaper rent per semester.

3.2.1.4 The Technology Village

• Like the concept of the Sasakawa Centre, the idea of a Technology Village has been lauded following its establishment.

• Although the Technology Village has been perceived as an asset with tremendous potential, its operations have been severely constrained by the fact that the vision and mission are not shared among faculty members of the School of Agriculture. An approved new strategic plan is yet to be implemented.
• There is evidence that the times the facility has engaged in production and/or processing, it was able to generate modest revenue from relatively small investment of monies in the non-traditional enterprises involving mushrooms, snails, grasscutters and gari. Therefore, there is the need to adequately resource with, say seed money, and effectively manage so that it can serve all the perceived functions of a teaching-cum-learning centre, a research laboratory, an outreach/extension centre for the University as well as income-generating facility.

• Over the years, the smooth running of the Technology Village has been greatly hampered because there was no functional management board.

• Adequacy of funding has been one of the major problems confronting the facility. Since its establishment, there has not been any infusion of substantial funds for operational purposes.

3.2.1.5 The SAFE Alumni Association of Ghana

• The notion of founding an Alumni Association to cater for the professional and personal well-being and development of SAFE graduates has been lauded by the graduates. Despite a pool of 576 potential/automatic members, the Association is, at best, very inactive taking into consideration the participation of its members in its planned activities. The current executive members are deeply worried about the sustainability of the Association.

• Apathy, lack of commitment, and inexperience in organizational skills have combined to constrain the association from effectively planning and conducting its programmes.

• A disturbingly low proportion of the SAFE graduates belong to either international or local professional associations. Although SAFE Alumni Association, Ghana has received some funding from SAFE management, graduates have not been actively involved in its programmes and activities. They, however, recognise its usefulness and potential contribution to their development and welfare.

• The current state of affairs of the association, therefore points to its unsustainability.

3.2.1.6 Female Enrolment and the SAFE Programme

• Female enrolment in Diploma and B.Sc. programmes in Ghana is extremely low with a female: male ratio of 1:4 and the reason for this situation is not difficult to find. Enrolment into the B.Sc. programme is exclusively dependent on the number of eligible females in the Ministry of Food and Agriculture. Invariably, this has always been negligible.

3.2.1.7 Participation of Stakeholders in the SAFE Programme

Various stakeholder-groups are involved in the SAFE programme in Ghana. The nature and level of participation of various stakeholders include:

• Financial contribution towards construction and rehabilitation of infrastructure (student hostel, conferences centre, offices, technology village restaurant chalets) and purchasing of vehicles.
• Provision of teaching and learning materials, sponsorship of workshops and conference, partial scholarships for students and staff training/development and facilitating the development of MOU among SAFE institutions.

• Participation in the design, implementation an evaluation of SAFE curriculum.

• Contribution to admission policies and selection of students into the programme.

• Provision resources for maintenance of structure for running of programme.

• Sponsorship towards the implementation of SEPs.

• Sharing of experiences with students in the current issues course of the programme.

• Presentations at the sessions in the Current Issues on Agricultural Extension and Technology course.

• Promotion of the implementation of SEPs in the communities.

• Farmers and farm families have been the beneficiaries of SEPs.

• Use of farms as demonstration plots.

• Serving as resource persons in the Current Issues course taught in the Agricultural Extension curriculum at UCC.

• Payment of fees to run the programmes.

• Co-supervising of SEPs during the implementation in the various communities across Ghana and other African countries.

• Ensuring academic quality assurance (external examination moderation).

• Review of SAFE programme curriculum.

• Academic exchange through sabbatical leave.

• Provision of technical knowledge on innovations and supervised students during SEPs’ implementation.

The full and active participation of all key stakeholders in the SAFE programmes are constrained by inadequate follow-ups to strengthen partnerships, no formally signed MOUs, inadequate resources and programmes, transfer of officers/personnel who have initiated partnerships at the community level and non-commitment or interest of others in SAFE programme activities.

Apart from the initial capital investment by the principal stakeholders (SAFE, UCC, USAID, and MoFA), it could be concluded that the SAFE programmes in Ghana have received modest support, both financially and otherwise, from a wide spectrum of stakeholder-groups ranging
from sister universities through farmers to other government agencies with agriculture-related mandate.

3.2.1.8 Participation of Government of Ghana in the SAFE Programmes

- The participation of GoG in SAFE programme activities has been in the form of contribution to construction of facilities, salaries and benefits of lecturers, support staff and students during training, and administration and management cost. The GoG participates in the SAFE activities indirectly through its implementing agencies such as the UCC, KAC, and MoFA.

- In terms of facilities, the GoG:
  - Paid US$81,600.00 towards the initial construction cost of Sasakawa Centre complex and salaries of UCC staff involved in the construction.
  - Contributed to building of existing academic infrastructure such as lecture theatres, library and laboratory and provided instructional equipment.

- In terms of salaries and benefits of lecturers, support staff and students the GoG:
  - Spends an estimated US$218,241.68 per annum on basic annual income of staff at UCC involved in SAFE and other programmes. GOG spends estimated US$85,243.51 per annum on staff based on percentage (39.8% for Lecturers and 35.1% for supporting staff) of time spent on SAFE programme only.
  - Provides research and book allowance (US$2,302.00 per annum per member), special allowance (160% of basic annual income), vehicle allowance (US$52.30 per month for senior members with cars), electricity rebate of US$30.72 per month, duty allowance of 15% of annual basic salary for those with special responsibilities. Other benefits include superannuation which is 12.5% of annual basic income, rent allowance and commuting allowance for those staying off-campus.
  - Contributes US$491,248.30 per annum towards the payment of salaries of students and 12.5% of basic annual salary per student as its social security obligation.
  - Partially finances students’ SEPs as and when funds are available.

- GoG contributes to the US$7,824.55 per year management and administration costs for SAFE and other programmes in the Department of Agricultural Economics an Extension at UCC.

- The GoG is the major stakeholder in the SAFE programme since it contributes very substantial amounts to the programme. However, GoG’s contributions are not always quantified and duly acknowledged. This could be due to the indirect nature of such contributions as its implementing agencies (UCC, MOFA, and KAC) have always been at the forefront.

- In sum, the contribution of GoG to the SAFE programme at UCC is estimated at US$101,600.00 towards the infrastructural development and donation of equipment. An amount of US$511,016.12 is paid on salaries and other emoluments of staff and students per annum.
3.2.1.9 Estimated Cost for Funding the Establishment of SAFE- Type B.Sc. Agricultural Extension Programme in Ghana

It is estimated that it would cost US$1,148,377.63 to fund and set up a SAFE-type B.Sc. Agricultural Extension Programme as the one established at UCC in Ghana.

3.2.2 General Observations and Conclusion

The major components of SAFE funded programmes in Ghana (SEPs, Technology Village, and the SAFE Alumni Association of Ghana) have not been aggressively promoted and publicised locally among the major stakeholders. A fundamental observation/conclusion from the case study is that, there is nowhere in the SAFE programme or its support systems that an established unit to conceptualise, develop, produce and reproduce communication materials to promote the SAFE programme. The establishment of this unit could help in reducing or eliminating most of the challenges and constraints facing the major components as outlined above.

3.2.3 Recommendations

3.2.3.1 The Agricultural Extension Programmes in General

- SAFE should consider instituting an award scheme to reward best graduating Diploma and B.Sc. agricultural extension graduates. As a group, their overall outstanding performance needs to be recognised to serve as motivation for prospective graduates.

- Examination officers of the SAFE Programmes at UCC and KAC should be motivated to work hard to reduce the administrative bottlenecks associated with crediting of results for graduation.

- KAC students should be registered online at UCC and issued with provisional (or prototype) transcripts before their final year. These could be tendered as evidence of successful completion of their programmes of study.

- Getting promoted within the civil service is riddled with so much bureaucratic red-tape and discrepancies in salary placements. This has caused too much pain and anguish to graduates of the SAFE programmes. Currently, a graduate teacher starts at Level 14 on the civil service salary scale while a graduate employed by MoFA starts at Level 12. Teachers are promoted to the highest point in the scale even if they remain in the classroom in the village. It is recommended that the SAFE Alumni Association, Ghana assumes this role to ensure smoothness in the process to reduce or even remove the frustrations experienced by graduates. Lessons can be learned from both the Ghana National Association of Teachers and National Association of Graduate Teachers.

3.2.3.2 Sustaining the Impact of the SEPs

- It is worthy to note that SEPs, as a concept, has become a useful tool for engendering agricultural and community development. There is, therefore, the need for a much stronger commitment to the strengthening of SEPs on the part of UCC and KAC along with the other key stakeholders. These stakeholders need to commit more resources to its implementation so as to ensure its sustainability. More dialogue and collaboration with
stakeholders in the decision-making process (conceptualization, planning and implementation of the SEPs) would be required. The graduates who work with various stakeholder-groups serve as frontline lobbyists for the SEPs cause.

- The UCC should formalize arrangements by signing MOUs with key partners such as NGOs, bilateral donor agencies, the private sector (large or commercial agribusiness enterprises) with the aim of sourcing financial assistance and logistical support for SEPs.

- The major achievements of SEPs within the communities over the years should be documented comprehensively and publicized extensively and aggressively using both print and electronic media and mechanisms such as newsletters, T- and polo shirts, and caps. This will not only create awareness of SEPs but also educate both potential sponsors and the general public.

- The Department of Agricultural Economics and Extension at UCC should consider setting up permanent district or regional projects to serve as learning laboratories for Level 400 students in the SAFE programme. This will also further promote the University as an ever-present development partner in the communities.

- The practice of SEPs is the key distinguishing feature of the B.Sc. and Diploma (Agricultural Extension) curriculum. That feature sets it apart from the general B.Sc. General Agriculture degree in the School of Agriculture. This means that SEPs should neither be eliminated from the SAFE programme nor should it be reduced to a mere academic ritual. Rather, the innovativeness that makes it unique should be safeguarded at all cost. This means that UCC staff, students, and off-campus co-supervisors should be well motivated so that they can deepen their commitment to the conceptualization, design, planning and implementation of SEPs. The process puts extra demand on the time and energy required when compared to supervision of other projects within the University. The Department of Agricultural Economics and Extension should, therefore, consider paying reasonable bonuses each year from proceeds generated from Sasakawa Centre to supervisors and co-supervisors so as to motivate them.

3.2.3.3 Ensuring the Sustainability of the Sasakawa Centre

Presented below are practical suggestions for ensuring sustainability and profitability of the Sasakawa Centre and the viability of the SAFE Programme as a whole.

**With Respect to the Income-Generating Cost Centres:**

- Increase nightly rates per room at the chalets to be comparable with similar facilities in the Cape Coast municipality.

- Improve overall quality of services at the guest chalets and restaurant, this would help retain the current captured patrons and entice new ones thereby fending off fierce competition from similar service providers on campus and within the Cape Coast municipality,

- Specific to the non-food services at the restaurant, there is dire need to ensure that all employees in the dining area are technically competent and can speak the English Language fluently along side the local dialect and
• Motivate employees by providing opportunities for staff development through short and medium-term training relating to knowledge, skills, and desirable attitude in the catering and hospitality industry.

_With Respect to the Academic Programme:_

• Increase the admission of foreign students into the academic programme. This would help augment funds for the management and supervision of the SEPs at UCC since each of these students pays a one-time fee of US$3,000,

• Engage in a campaign to encourage full active participation of all key stakeholders in the design, implementation and monitoring of the SEPs at UCC and KAC,

• Facilitate and guide students to source funding for their SEPs this will help reduce the demand on the Centre for direct funding of the supervision of SEPs,

• Provide funding support for staff training and development through short courses, seminars, professional conferences, and seminars,

• Motivate staff by providing them with laptop computers purchased from internally generated funds,

• Develop and implement demand-driven, short-term and medium-term training programmes to generate additional funds,

• Develop grant proposals and submit same to funding agencies and foundations for funding the Technology Village, School Farm, and off-campus SEPs,

• Encourage the SAFE Alumni Association of Ghana to actively participate in the programming of the SAFE Programme especially in the areas of resource mobilization and co-supervision and

• Engage the current and all potential (emerging) stakeholders in a new compact regarding the role, direction, and funding of the SAFE Programme for sustainable agricultural/national development.

_3.2.3.4 Ensuring the Sustainability of Technology Village_

• Human resource base of the Technology Village needs to be strengthened. The current staff need further skills and attitude training.

• Seed money for operations and expansion should be sought and considered as a loan.

• The School of Agriculture budget should have a line item allotted as “supplementary” to cushion the operations of the facility.

• Existing production and processing enterprises must be expanded. The UCC and interested stakeholders need to invest by many folds the operations of the snailery, grasscutter production, mushroom and gari processing.
• The UCC needs to support the re-introduction of an apiary since it initially was one of main production enterprises.

• There is the need to complete fish ponds to make them operational since the technical knowledge and expertise are available and demand from the communities to learn more about fish farming.

• The School of Agriculture and its partners need to identify and introduce new production systems or innovations such as use of crib technology in storage of potato, solar drying of vegetables, develop an IPM programme for pest control in sweet potato, etc. at the Technology Village.

• Training programmes should be fee-paying for individuals and groups (public and private alike).

3.2.3.5 Increasing Female Enrolment in SAFE Programme

In the immediate term:
• UCC and KAC, in collaboration with MoFA, should engage more women partners as individuals and groups in the design and implementation of SEPs and delivery of courses under the SAFE programme.

• UCC and KAC in collaboration with MoFA should aggressively advertise the SAFE Programme to encourage more qualified females to apply. All available mechanisms should be employed to achieve this goal.

• UCC should mount a remedial programme to upgrade females who lack the requisite admission requirements in the mathematics and sciences to become eligible to matriculate, first at KAC or directly at UCC. Funding should come from MoFA and Ministry of Women and Children’s Affairs in particular.

• MoFA should strengthen the Women in Agriculture Programme by ensuring that the concept and its practice are visible at the farming community level throughout Ghana. This will require an increase in the number of female extensionists, who will work directly with women farmers, women agro-processors, female home-makers and female youth programmes. Consequently, the number of qualified females to teach/guide these groups will have to increase from its present woefully small size. Thus, the SAFE programme will be called upon to train such professionals.

In the medium and long terms:
• MoFA, in collaboration with other sector ministries (Women and Children’s Affairs; Fisheries; Education, and Science and Sports) to formulate policies and programmes that are gender sensitive enough to address the following:
  - Motivation, encouragement and sponsorship of women/females to pursue studies in agriculture and related fields such as agro-processing, agribusiness, food science and home economics at the pre-university level.
• Diversification of the areas of specialization in extension programming by including subject-matter specialists in home economics, food science and agri-business, and agro-processing, and community nutrition, for example.

• UCC should plan and implement diversified Extension Education under the SAFE programme. Thus, in adapting the US Cooperative Extension Model, students could matriculate in different curricula such as Extension Home Economics, Extension Agribusiness, Extension Horticulture, Extension Agro-Processing and Extension Youth Programmes, Extension Community Nutrition.

3.2.3.6 Recruitment and Retention of Academic Faculty for SAFE Programmes

KAC (MoFA/GoG) should continue to sponsor staff for post-graduate studies. However, such staff should be bonded. Highly qualified and competent staff should be paid competitive salary and benefits commensurate with their status as pertained to in other tertiary institutions.

• Additionally, an enabling environment (good office space, good accommodation, instructional facilities) should be created and maintained by KAC to attract more of the highly qualified and competent potential staff.

• MoFA should consider seconding its qualified and competent staff in other Directorates to KAC as teaching staff.

• Management Board of KAC should consider establishing business ventures to generate revenue into an endowment fund to be used to pay bonuses as a means of motivating staff at KAC.

3.2.3.7 Enhancing Sustainable Government Participation

To enhance the sustainable participation of Government of Ghana (GoG) in SAFE programmes, GoG should be more abreast with the major developments in the SAFE programmes.

• The idea of a consultative group for SAFE programmes in Ghana involving principal stakeholders (GoG, SAFE, Alumni, farmers and UCC) should be revisited and concretized.

• There should be periodic documentation and reporting of activities, achievements, challenges and prospects of the SAFE programmes to create greater awareness among the relevant audiences including GoG.

• A line item for individual SEP of students and training under the B.Sc Extension programme at UCC as pertained to other MoFA training institutions should be considered by MoFA when it submits its annual budget to GoG. This will further ensure direct and sustainable GoG contribution to the SAFE programmes.

3.2.3.8 Ensuring the Sustainability of the SAFE Alumni Association of Ghana

The following are therefore suggested to make the association more sustainable.
• Embark on an aggressive membership drive campaign.

• The strengthening of regional and district executives.

• Stronger appeal to members to pay monthly dues promptly.

• Evolving the Association into a professional body.

• Solicit assistance from UCC (Department of Agricultural Economics and Extension) to help strengthen the organizational skills and competence of executives.

• Understudy successful associations as to how to organize.

• Develop and implement regional Supervised Enterprise Projects (SEPs) as income-generating ventures.

• Executives should further pledge to be more committed in terms of time and resources.

• Develop a website to link up members and between membership and other institutions

3.2.3.9 Establishment of Information Communication Technology Development Centre

The UCC, KAC and other major stakeholders who have prop up the SAFE programme should consider funding the establishment of Information Communication Development Centre (ICTDC).

• The core business of the ICTDC would be to aggressively promote and publicise activities, achievements and challenges of SAFE (SEPs, Technology Village, and the SAFE Alumni Association of Ghana) and other programmes of the UCC and KAC.

• The ICTDC could conceptualise, develop, produce and reproduce and disseminate communication materials.

• Moreover, the proposed ICTDC could serve as teaching, learning centre as well research facility in the area of development communication.

• Furthermore, the proposed ICTDC should be charged with the responsibility of being self-sustaining in the long run thereby generating incomes to support SAFE programmes.

• The proposed ICTDC, if fully developed, would be the nerve-centre for distance teaching and learning, which is the futuristic perspective of the consultants for the SAFE programme. Here the students could pursue their studies at regional/satellite centres.

• The ICTDC should be furnished with the new equipment and materials to make it functional. The ICTDC could host the new website for SAFE programme. The network administrator to be employed at the ICTDC could load and update current information and new developments on SAFE programmes. Lecture notes and other courseware could be made available on the SAFE website to be shared by all SAFE students and graduates in the African sub-region.
• Since UCC has the basic infrastructure available, the initial investment would not be colossal. Hence, joint funding by current and potential partners could bring the idea to fruition.

3.2.3.10 Value Chain Extension Programmes

SAFE and implementing institutions should consider the value approach to extension programme delivery (including curriculum reform). The value approach to extension programme would encompass all stages of production, processing, marketing (including export) and consumption of agricultural products/innovations/technologies.

3.2.3.11 Setting up of Sasakawa Academic Chairs in SAFE Institutions

SAFE should consider the setting up of Sasakawa Academic Chairs in all participating SAFE institutions. This can encourage extension experts (experienced teaching staff) to spend time in these institutions to inject new ideas into SAFE programmes.
References


University of Cape Coast (1997). 27th Congregation Programme and List of Graduands Cape Coast: Academic Directorate, University of Cape Coast.

University of Cape Coast (1998). 28th Congregation Programme and List of Graduands Cape Coast: Academic Directorate, University of Cape Coast.

University of Cape Coast (1999). 29th Congregation Programme and List of Graduands Cape Coast: Academic Directorate, University of Cape Coast.

University of Cape Coast (2000). 30th Congregation Programme and List of Graduands Cape Coast: Academic Directorate, University of Cape Coast.

University of Cape Coast (2001). 31st Congregation Programme and List of Graduands Cape Coast: Academic Directorate, University of Cape Coast.

University of Cape Coast (2002). 32nd Congregation Programme and List of Graduands Cape Coast: Academic Directorate, University of Cape Coast.

University of Cape Coast (2003). 33rd Congregation Programme and List of Graduands Cape Coast: Academic Directorate, University of Cape Coast.

University of Cape Coast (2004). 34th Congregation Programme and List of Graduands Cape Coast: Academic Directorate, University of Cape Coast.

University of Cape Coast (2005). 35th Congregation Programme and List of Graduands Cape Coast: Academic Directorate, University of Cape Coast.

University of Cape Coast (2006a). 36th Congregation Programme and List of Graduands Cape Coast: Academic Directorate, University of Cape Coast.

University of Cape Coast (2006b). 37th Congregation Programme and List of Graduands Cape Coast: Academic Directorate, University of Cape Coast.

University of Cape Coast (2007). 38th Congregation Programme and List of Graduands Cape Coast: Academic Directorate, University of Cape Coast.
APPENDICES

Appendix I: Terms of Reference (TOR) on Case Study on SAFE Programmes at University of Cape Coast (Ghana)

1.0 Duties of the Consultants (See Annex 1 for details)
- Conduct tracer study of the graduates of the SAFE programs (University of Cape Coast).
- Identify, analyze and elaborate key components of the program at the two universities.
- Identify and assess key impacts of the programs.
- Provide recommendations for developing and implementing sustainable SAFE-type programs.

2.0 Tracer study (Hard data) on graduates
- Statistics of graduates
- Status of the graduates
- How have the graduates fared in terms of:
  - Increased income?
  - Promotions?
  - Supervisory responsibilities?
  - Other?
- How many have left government service and gone to NGOs, private sectors, etc?
- How many have proceeded and/or completed higher education (B.Sc. for Kwadaso Agricultural College graduates, M.Sc. and Ph.D.)?
- Involvement of graduates in alumni and professional associations.
- Other?

3.0 Profile of key components of the program Sasakawa Centre, UCC
- Facilities (dormitories, hostels, conference room, meeting rooms, chalets, restaurant, offices, class rooms, libraries, resource centres, etc)
- Cost of facilities (UCC source, external/SAA/SAFE source, Ghana government, etc.).
- Running cost
- Income from the use of facilities
- How income is used to sustain the SAFE program
- Management system
- Challenges and constraints for smooth running and management
- Strategies for addressing challenges and constraints
- Strategies for ensuring sustainability
- Other? ....

Technology Village
- Concept
- Function
- Content (Technologies)
- Establishment cost
- Running cost
- Management system

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• How effective is the Technology Village (its impact on farmers, organizations, students, lecturers, etc.)?
• Challenges and constraints for smooth running and management
• Strategies for addressing challenges and constraints
• Strategies for ensuring sustainability
• Other? ….

**Supervised Enterprise Projects (SEPs)**

• Concept
• Function
• Implementation cost
• Management system (supervision, employer support)
• Challenges and constraints for smooth implementation
• Strategies for addressing challenges and constraints
• Strategies for ensuring sustainability
• Other? ….

**SAFE Alumni Associations**

• Function
• Number of members
• Cost to form the associations
• Running cost (including office, congress and newsletter)
• Sustainability of the associations
• Other? ….

**Shortage of Teaching Staff**

• Assessment (data) – Current strength of teaching staff; teaching staff actually required.
• Constraints to recruit and retain teaching staff
• Strategies for improving recruitment and retention of staff
• Other? ….

**Low Female Intake in the SAFEP Programme**

• Data on number
• Reasons for low women enrolment
• Strategies to improve intake of women
• Other? ….

**Low Stakeholders’ Participation**

• Inventory of stakeholders
• Nature and level of participation
• Constraints to full participation
• Strategies for enhancing full participation
• Other? ….
Government Participation

- Salaries and benefits of lecturers and support staff [data]
- Salaries and benefits of students during training (study leave with pay) [data]
- Administration and management cost [data]
- Contribution to construction of facilities (class rooms, dormitories, Sasakawa Centre, etc) [data]
Appendix II: Questionnaire for the Graduates

+TRACER STUDY OF THE GRADUATES OF THE SAFE DIPLOMA AND B. SC. AGRICULTURAL EXTENSION PROGRAMMES

Questionnaire for Graduates

Our Dear Graduate,

At a point in your academic life, you received training in either the Diploma in Agricultural Extension programme at Kwadaso and/or B.Sc. Agricultural Extension programme at University of Cape Coast in Ghana under the auspices of Sasakawa Africa Fund Extension (SAFE), University of Cape Coast, Ministry of Food and Agriculture (MoFA) or other stakeholders.

The SAFE management and University of Cape Coast are interested in knowing the impact of the programme on you as a person as well as your profession, clients, employers; and the major challenges you faced during and since the programme. Your practical recommendations will be used to improve the SAFE programmes and agricultural extension profession on the African continent.

Please respond frankly and urgently to this questionnaire. The data control section is meant to assist us reach all graduates of SAFE programme. Be assured that all the information that will be provided will serve for the intended objectives and will be kept confidential.

Kindly return the completed questionnaire soonest to the collator of questionnaire in your area or:

Dr. Festus Annor-Frempong
SAFE Coordinator,
School of Agriculture
University of Cape Coast
Cape Coast, Ghana.
Phone: 233-244-741679.
E-mail: Papaannor@yahoo.com

Again, we thank you for your time and invaluable contribution.

Sincerely,

________________________
Dr. F. Annor-Frempong
SAFE Coordinator, UCC
Part 1: Impact of SAFE Programme on Graduates

1. Which of the SAFE programme(s) have you participated in? Tick and provide the applicable years.

<table>
<thead>
<tr>
<th>Type of Programme</th>
<th>Yes</th>
<th>Year of entry</th>
<th>Year of completion</th>
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<tbody>
<tr>
<td>Diploma in Agricultural Extension at Kwadaso</td>
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<td></td>
</tr>
<tr>
<td>B.Sc. Agricultural Extension at UCC</td>
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</table>

2. Have you attended any further training or course since graduation? Yes [ ] No [ ] (If yes, state the course, institution/place, year and type of certificate awarded. **NB: Exclude seminar and workshops.**)

<table>
<thead>
<tr>
<th>Full name of post graduation training/course</th>
<th>Institution/place</th>
<th>Year</th>
<th>Type of certificate awarded</th>
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</table>

3. Based on your response to Question 2, would you say your participation in the SAFE programme(s) gave you an advantage over other co-workers who did not participate in the course or training? Yes [ ] No [ ]

3.1 Please explain you response to Q3.
___________________________________________________________________________
___________________________________________________________________________
___________________________________________________________________________

4. Have you changed job since graduation? Yes [ ] No [ ]

4.1 Provide the name and location of employer **before** the SAFE programme:
_________________________________________________________________________________

4.2 Provide the name(s) and Location(s) of employer(s) **after** the SAFE programme:
_________________________________________________________________________________

5. Name of Department in the organization. (e.g. Human Resource, Extension, Animal science, crop science): ____________________________

6. Job position or title (e.g. District Development Agent, District development Officer, etc.) **before** the SAFE programme: ____________________________

7. Job position or title (e.g. District Development Agent, District development Officer, etc.) **after** the SAFE programme: ____________________________

8. Other duty position(s) e.g. (MIS Coordinator) ____________________________
9. Class and rank *before* SAFE programme (Tick your class and indicate your rank). The class and rank of non-Ghanaians may differ. Please indicate appropriate for your country

<table>
<thead>
<tr>
<th>Class</th>
<th>Rank (e.g. Technical Officer, Principal Production Officer)</th>
</tr>
</thead>
<tbody>
<tr>
<td>[ ] Technical class</td>
<td>___________________________________________________________</td>
</tr>
<tr>
<td>[ ] Sub professional</td>
<td>___________________________________________________________</td>
</tr>
<tr>
<td>[ ] Professional class</td>
<td>___________________________________________________________</td>
</tr>
</tbody>
</table>

10. Class and rank *after* SAFE programme (Tick your class and indicate your rank)

<table>
<thead>
<tr>
<th>Class</th>
<th>Rank (e.g. Technical Officer, Principal Production Officer)</th>
</tr>
</thead>
<tbody>
<tr>
<td>[ ] Technical class</td>
<td>___________________________________________________________</td>
</tr>
<tr>
<td>[ ] Sub professional</td>
<td>___________________________________________________________</td>
</tr>
<tr>
<td>[ ] Professional class</td>
<td>___________________________________________________________</td>
</tr>
</tbody>
</table>

11. Has your participation in the SAFE programme contributed to change in your job position or title?
   Yes [ ] No [ ] Kindly explain your response

___________________________________________________________________
___________________________________________________________________
___________________________________________________________________
___________________________________________________________________

14. Has your job description changed since graduation? Yes [ ] No [ ] (If yes, indicate new duties that have been included in your job).

   a. ___________________________________________________________________
   b. ___________________________________________________________________
   c. ___________________________________________________________________
   d. ___________________________________________________________________

15. How would you rate the appropriateness of your current job position or placement with respect to the SAFE training received? Not Appropriate [ ] Somewhat Appropriate [ ] Very Appropriate [ ]

16. Does your work remuneration (salary, allowances, etc) commensurate with the type of SAFE training obtained? [ ] Yes [ ] No

17. What was your annual income *before* the SAFE programme? _______________________

18. What is your current annual income? _______________________

19. What is the general perception of your co-workers and organization about job performance of the SAFE (B.Sc. and Diploma in Agricultural Extension) graduates?

___________________________________________________________________
___________________________________________________________________
___________________________________________________________________

20. Did you face any problems getting back into your organization *after* completing the SAFE programme?
   [ ] Yes [ ] No
   If yes, list any 2 of the problems

   a. ___________________________________________________________________
   b. ___________________________________________________________________
   c. ___________________________________________________________________
21. What suggestions do you have for improving the SAFE curriculum delivery during training?
   a. ________________________________________________________________
   b. ________________________________________________________________
   c. ________________________________________________________________
   d. ________________________________________________________________

Part 2: The Supervised Enterprise Projects (SEPs)

22. How much money did you spend on your SEP (Planning and implementation)?
   __________

23. Kindly rank (in percentages) the contributions of following sources to expenditure in Q22. (NB: Total should add up to 100%)

   Self                              %
   Organization (e.g. MoFA)          %
   Funding agencies (NGOs, Banks, philanthropists etc) %
   Beneficiary community (e.g. Farmers) %
   District assembly                 %
   Others (Please specify)?)        %

24. What is the current state of your Supervised Enterprise Project (SEP)?
   ___________________________________________________________________
   ___________________________________________________________________
   ___________________________________________________________________

25. Is the group (farmer association) you established or strengthened still operating?
   Yes [    ]  No [    ]

26. Have you succeeded in forming other groups? Yes [   ]    No [    ]

27. If yes to Question 26 above, how many of them? __________ (Give the exact number)

28. How many times have you visited your SEP’s site in the last six months?
   ___________________________________________________________________

29. What major development(s) has/have your SEP brought to the community?
   a. ________________________________________________________________
   b. ________________________________________________________________
   c. ________________________________________________________________
   d. ________________________________________________________________

30. What are the major challenges to sustaining your SEP activities after graduation?
   a. ________________________________________________________________
   b. ________________________________________________________________
   c. ________________________________________________________________
   d. ________________________________________________________________
Part 3: Membership of Professional and SAFE Alumni Association

31. List the professional associations/societies to which you currently are an active member; for each indicate whether you hold a position on the executive.

a._______________________________________________________________________
b._______________________________________________________________________
c._______________________________________________________________________

32. Do you feel the need for the formation of SAFE Alumni association? [ ] Yes [ ] No
Kindly provide two reasons for your response
_______________________________________________________________________
_______________________________________________________________________

33. How would you describe your status with regards to SAFE Alumni association in Ghana? [ ] Executive member [ ] Active member [ ] Inactive member

34. Have you attended the following meetings of SAFE Alumni association in Ghana?

Bi-annual conference [ ] Yes [ ] No If yes indicate year & place
Statutory regional/district meetings [ ] Yes [ ] No If yes indicate year & place

35. Suggest two (2) practical ways for improving the sustainability of SAFE Alumni association
_______________________________________________________________________
_______________________________________________________________________

Part 4: Background Information

Please write or tick all that apply in the spaces provided.

36. Your name: ________________________________
               Family/Surname                       First name

37. Gender: Male [ ] Female [ ]

38. Age as at last birthday: ___________ years.


40. Work experience: ________ years

41. Provide your current contact below.

   41.1 Phone Numbers: Cell
                   Office
                   Home

   41.2 E-mail (if any) ________________________________

   41.3 Postal address ________________________________
42. Kindly provide the contact addresses, phone numbers, or e-mail addresses of your colleague graduates who might have left MoFA to work for other organizations or pursuing further studies (local or foreign).

<table>
<thead>
<tr>
<th>Name</th>
<th>Organization or school</th>
<th>Phone number</th>
<th>E-mail</th>
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<td></td>
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</tbody>
</table>

Thank you for your time and cooperation

Part 5: Data control (To be filled by officer receiving the completed questionnaire)

Status of returned schedule:
[ ] complete and satisfactory
[ ] partly completed; follow-up needed

Date returned: ____________________________________________

Project Code: SAFE/UCC/_______/_______/000__
Appendix III: Questionnaire for the Department of Agricultural Economics and Extension, School of Agriculture, University of Cape Coast.

Questionnaire for Department of Agricultural Extension Economics & Extension

(To be answered by HOD and administrative secretaries)

1. How much money was spent in putting up the following structures?
   a. Student Hostel
   b. Conference Hall and discussion room
   c. Offices
   d. Restaurant
   e. Chalets

(NB: Where applicable, kindly give the breakdown of in terms of contributions from following sources: University of Cape Coast, Ghana Government, Sasakawa Africa Association/ Sasakawa Fund for Extension Education, Other donors (USAID), etc)

2. How much money was spent in furnishing the following structures?
   a. Student Hostel (Tables and chairs, wardrobes, fans, beds, mattresses & pillows etc),
   b. Conference Hall and discussion room (Tables and chairs, air-conditioners, curtains, PA system, cover cloths etc)
   c. Offices (carpets, furniture (table, chair, bookshelves) etc air-conditioners
   d. Restaurant (furniture (table, chair), curtains, air-conditioners, fridge and deep freezers, kitchen equipment (gas, cooking utensils etc)
   e. Chalets (furniture (table, chair), curtains, air-conditioners, fridge, heaters, beds, mattresses & pillows, bed sheets and bedspreads, TV and accessories, etc

3. Running cost on the educational equipment & machinery of the programme
   a. How many and how much has the department spent on acquiring educational equipment & machinery (vehicles, computers & accessories, white boards, computers, LCDs etc)
   b. How much is spent by the department in maintaining the educational equipment & machinery (maintenance and repair, replacing of parts, fuel cost, oil change etc)

4. Provide the Income and Expenditure accounts for 2004, 2005 and 2006 on each of the following outfits:
   a. Chalets
   b. Conference centre (hall and discussion rooms)
   c. Restaurant
   d. Student Hostel

5. How much Expenditure is spent on maintenance, repair of damaged equipment, painting, labour cost, worker salaries, detergents and others where applicable) of offices at Sasakawa.

6. Provide the organogram(s) for the Sasakawa centre complex.
7. Briefly describe how the income generated from Chalets, Conference centre (hall and discussion rooms), Restaurant, and Student Hostel are used.

8. What are the Challenges and Constraints for smooth running and management of the Chalets, Conference centre (hall and discussion rooms), Restaurant, and Student Hostel?

9. What Strategies have you put in place to address the challenges and constraints?

10. What plans/strategies for ensuring sustainability of SAFE programme at UCC?

11. What plans/strategies for improving intake of women in programme?

12. Provide the actual and required strength (number, qualification, and rank/status) of teaching staff involved in B.Sc. Extension programme for 2004, 2005 and 2006 academic years.

13. What the constraints to recruiting and retaining of teaching staff for the programme?

14. What strategies have you put in place for improving recruitment and retention of staff?

15. Who are the other major stakeholders for running the B.Sc. Agricultural Extension programme?

16. What is the nature and level of participation of each of the other stakeholders?

17. What are the constraints to full participation of other major stakeholders?

18. What strategies have you put in place to enhance full participation by all stakeholders?

19. What is Management system (supervision, employer support) in place for implementation of SEPs?

20. What are the challenges and constraints for smooth implementation of SEPs.

21. What strategies have you put in place for addressing challenges and constraints?

22. What strategies have you put in place for ensuring sustainability of SEPs?

23. How much has UCC spent over the past 3 years (2004, 2005 and 2006) on supervision of SEPs? Please provide breakdown (allowances, fuel cost, vehicle repair & maintenance, stationery & supplies & communication etc).
Appendix IV: Questionnaire for the Technology Village, UCC

(To be answered by Coordinators (Past & Present Deans & Supervisors, Accountant)

1. Does the Technology Village have any vision statement?  Yes[  ]  No[  ]
2. If yes state the vision statement or provide a copy of statement.
3. Does Technology Village have any vision statement?  Yes[  ]  No[  ]
4. If yes state the vision statement or provide a copy of statement.
5. List the main strategic objectives of Technology Village.
6. List the major activities in the following key areas since its inception of Technology village. (Provide numbers where available)
   a. Teaching
   b. Research
   c. Extension/outreach programme including trainings, visits by farmers, etc
7. What types of innovations/technologies are available at the village?
8. What types of innovations/technologies do you plan to introduce at the technology village?
9. Estimate the initial amount of money spent in putting for the building and structures, machinery and equipment.
11. How much money has been spent on purchases of technologies, material & supplies, salary of workers at the Technology village?
12. What management system is in place to ensure successful running of technology? (Provide the organogram)
13. How many training sessions did you hold in 2004, 2005, and 2006? (Provide the total number of people trained)
14. What are types of visitors/visits have you received at the Technology village? (Provide the total number if possible)
16. How much income have you generated for 2004, 2005, and 2006 from the produce/products in Question 15?
17. What are the Challenges and Constraints for smooth running and management of Technology village?
18. What Strategies have you put in place to address the challenges and constraints?
19. What plans/strategies for ensuring sustainability of Technology village?
Appendix V: Questionnaire for Kwadaso Agricultural College

(To be answered by Principal (Past & Present), SAFE Coordinator)

1. How much money was spent in refurbishing the following structures?
   a. Student Hostel
   b. Offices
   c. Classrooms
   d. others

   (NB: Where applicable, kindly give the breakdown of in terms of contributions from following sources: Ministry of Food & Agriculture, Ghana Government, Sasakawa Africa Association/ Sasakawa Fund for Extension Education, Other donors etc)

2. How much money was spent in furnishing the following structures?
   a. Student Hostel (Tables and chairs, wardrobes, fans, beds, mattresses & pillows etc),
   b. Offices (carpets, furniture (table, chair, bookshelves) etc air-conditioners
   c. Classrooms

3. Running cost on the educational equipment & machinery of the programme
   d. How many and how much has KAC spent on acquiring educational equipment & machinery (vehicles, computers & accessories, white boards, computers, LCDs etc.)
   e. How much is spent by the KAC in maintaining the educational equipment & machinery (maintenance and repair, replacing of parts, fuel cost, oil change etc)

4. Provide the organogram for the KAC.

5. Briefly describe how income is generated for running of Diploma in Extension programme at KAC.

6. Provide the Income and Expenditure accounts for 2004, 2005 and 2006 for the following:
   a. SEPs
   b. Running of SAFE programme

7. What are the Challenges and Constraints for smooth running and management of the SAFE at KAC?

8. What Strategies have you put in place to address the challenges and constraints?

9. What plans/strategies for ensuring sustainability of SAFE programme at KAC?

10. What plans/strategies for improving intake of women in programme?

11. Provide the actual and required strength (number, qualification, and rank/status) of teaching staff involved in Diploma Extension programme for 2004, 2005 and 2006 academic years.
12. What the constraints to recruiting and retaining of teaching staff for the programme?

13. What strategies have you put in place for improving recruitment and retention of staff?

14. Who are the other major stakeholders for running the Diploma in Agricultural Extension programme?

15. What is the nature and level of participation of each of the other stakeholders?

16. What are the constraints to full participation of other major stakeholders?

17. What strategies have you put in place to enhance full participation by all stakeholders?

18. What is Management system (supervision, employer support) in place for implementation of SEPs?

19. What are the challenges and constraints for smooth implementation of SEPs.

20. What strategies have you put in place for addressing challenges and constraints?

21. What strategies have you put in place for ensuring sustainability of SEPs?

22. How much has KAC spent over the past 3 years (2004, 2005 and 2006) on supervision of SEPs? Please provide breakdown (allowances, fuel cost, vehicle repair & maintenance, stationery & supplies & communication etc).
20. Does your Alumni Association have any vision statement? Yes[ ] No[ ]

21. If yes state the vision statement or provide a copy of statement.

22. Does your Alumni Association have any vision statement? Yes[ ] No[ ]

23. If yes state the vision statement or provide a copy of statement.

24. List the main strategic objectives of your association.

   i. 
   ii. 
   iii. 

25. What is the strength of your registered membership? Of this number, what percentage will you describe as active members?

26. List the major activities conducted by your association since its inception.

   i. 
   ii. 
   iii. 

27. What are the major achievements of your association over the years?

   i. 
   ii. 
   iii.
28. What are the threats/problems to sustainability of the association?

i.  
ii.  
iii.  

29. What measures have you put in place to ensure sustainability of the association?

i.  
ii.  
iii.  

30. What are the major concerns of the executives or entire membership?

i.  
ii.  
iii.  

31. How much have you spend on your association since its inception? Provide the following:
   a. Cost incurred in the organization of biannual congress (Publicity, Transportation, Meals, Fuel costs, stationery and supplies, preparatory meetings, allowances for executives etc) since inception of organization. (Provide the breakdown of Income and Expenditure account for each conference if available)
   b. Cost incurred in the production of Alumni newsletter.
   c. Cost incurred in furnishing alumni office and acquisition of equipment.
   d. Day to day running cost (communication, networking etc)

13. Other information- Kindly provide any other useful information such as annual reports, handing over notes etc that could be used to justify the sustainability of Association.
### Appendix VII: The Graduation Year, Gender and Class Distribution of Graduates with the B.Sc. Degree from the SAFE Programme at UCC, Ghana

<table>
<thead>
<tr>
<th>Graduating Academic Year</th>
<th>Sex</th>
<th>First Class</th>
<th>Second Class Upper</th>
<th>Second Class Lower</th>
<th>Third Class</th>
<th>Pass</th>
<th>Incomplete</th>
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### SUMMARY

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<table>
<thead>
<tr>
<th><strong>Percentage of Students who pursued SAFE B.Sc.</strong></th>
<th><strong>Percentage of Students who completed SAFE B.Sc.</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Male 254 80.3%</td>
<td>Male 244 80 %</td>
</tr>
<tr>
<td>Female 62 19.7%</td>
<td>Female 61 20%</td>
</tr>
<tr>
<td><strong>Total 316 100%</strong></td>
<td><strong>Total 305 100%</strong></td>
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Sources: Field Data, December 2007.
### Appendix VIII: The Graduation Year, Gender and Class Distribution of Graduates with the Diploma from the SAFE Programme at KAC, Ghana

<table>
<thead>
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<th>Graduating Academic Year</th>
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<tr>
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<td>3</td>
<td>-</td>
<td>-</td>
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</tr>
<tr>
<td></td>
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</tr>
<tr>
<td>2003/2004</td>
<td>Male</td>
<td>2</td>
<td>14</td>
<td>12</td>
<td>5</td>
<td>-</td>
<td>2</td>
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</tr>
<tr>
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<td>10</td>
<td>3</td>
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<td>-</td>
<td>-</td>
<td>-</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
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<td>16</td>
<td>14</td>
<td>4</td>
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<td>2006/2007</td>
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<td>2</td>
<td>13</td>
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<td>-</td>
<td>-</td>
<td>27</td>
<td>34</td>
</tr>
<tr>
<td></td>
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</tr>
<tr>
<td>Total</td>
<td>Male</td>
<td>30</td>
<td>108</td>
<td>87</td>
<td>30</td>
<td>2</td>
<td>5</td>
<td>261</td>
<td>261</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>5</td>
<td>18</td>
<td>15</td>
<td>4</td>
<td>-</td>
<td>1</td>
<td>43</td>
<td>43</td>
</tr>
</tbody>
</table>

### SUMMARY

<table>
<thead>
<tr>
<th>Sex</th>
<th>SUM Total</th>
<th>Percentage of Students who pursued SAFE Diploma</th>
<th>Percentage of Students who completed SAFE Diploma</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>218</td>
<td>83.5%</td>
<td>Male 214</td>
</tr>
<tr>
<td>Female</td>
<td>43</td>
<td>16.5%</td>
<td>Female 41</td>
</tr>
<tr>
<td>Total</td>
<td>261</td>
<td>100%</td>
<td>Total 256</td>
</tr>
</tbody>
</table>

Source: Sources: Field Data, December 2007
### Appendix IX: Distribution of Grade and Annual Basic Income of All Graduates of the SAFE Programmes at UCC and KAC, Ghana as of December, 2007

<table>
<thead>
<tr>
<th>Grade</th>
<th>B.Sc. Graduates</th>
<th>Diploma Graduates</th>
<th>Total</th>
<th>Level</th>
<th>Annual Basic Income Range in Cedis</th>
<th>Annual Basic Income Range in US Dollars</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Professional Class</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Assistant Director/Principal Agric. Officer/Principal Extension Officer/Principal Agric. Economist/ Principal Agric. Engineer/</td>
<td>7</td>
<td>-</td>
<td>7</td>
<td>17</td>
<td>65,535,530 - 80,600,605</td>
<td>6,454.46 - 8,430.14</td>
</tr>
<tr>
<td>Senior Agricultural Officer/Senior Animal Husbandry Officer/Senior Extension Officer/Senior Agric. Economist</td>
<td>44</td>
<td>-</td>
<td>44</td>
<td>15</td>
<td>48,764,532 – 61,787,300</td>
<td>5,100.36 - 6,462.43</td>
</tr>
<tr>
<td>Agricultural Economist/Agricultural Officer/Agricultural Engineer/Agricultural Extension Officer</td>
<td>89</td>
<td>-</td>
<td>89</td>
<td>14</td>
<td>42,064,956 – 53,298,267</td>
<td>4,399.64 – 5,574.55</td>
</tr>
<tr>
<td>Assistant Agricultural Economist/Assistant Agricultural Officer/Assistant Agricultural Engineer/Assistant Agricultural Extension Officer</td>
<td>58</td>
<td>-</td>
<td>58</td>
<td>11</td>
<td>26,999,894 - 34,210,130</td>
<td>2,823.96 – 3,578.09</td>
</tr>
<tr>
<td><strong>Sub-Professional</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Assistant Chief Health Officer/Assistant Chief Animal Production Officer/Assist. Chief Production Officer</td>
<td>7</td>
<td>-</td>
<td>7</td>
<td>15</td>
<td>48,764,532 – 61,787,300</td>
<td>5,100.36 - 6,462.43</td>
</tr>
<tr>
<td>Principal Animal Health Officer/Principal Animal Production officer/Principal Production Officer</td>
<td>5</td>
<td>1</td>
<td>6</td>
<td>14</td>
<td>42,064,956 – 53,298,267</td>
<td>4,399.64 – 5,574.55</td>
</tr>
<tr>
<td>Senior Animal production Officer/Senior production officer</td>
<td>18</td>
<td>4</td>
<td>22</td>
<td>13</td>
<td>36,285,600 – 45,975,554</td>
<td>3,795.17 – 4,808.66</td>
</tr>
<tr>
<td>Production Officer/ Animal Health Officer/Animal Production Officer</td>
<td>16</td>
<td>82</td>
<td>98</td>
<td>12</td>
<td>31,300,277 – 39,658,917</td>
<td>3,273.75 – 4,147.99</td>
</tr>
<tr>
<td>Assistant Animal Health Officer</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>10</td>
<td>23,290,346 – 29,509,958</td>
<td>2,435.97 – 3,086.49</td>
</tr>
<tr>
<td><strong>Technical Class</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chief Technical Officer</td>
<td>16</td>
<td></td>
<td></td>
<td></td>
<td>56,521,783 – 71,628,415</td>
<td>5911.70 – 7491.73</td>
</tr>
<tr>
<td>Assistant Chief Technical Officer</td>
<td>2</td>
<td>7</td>
<td>2</td>
<td>14</td>
<td>42,064,956 – 53,298,267</td>
<td>4,399.64 – 5,574.55</td>
</tr>
<tr>
<td>Principal Technical Officer</td>
<td>1</td>
<td>58</td>
<td>59</td>
<td>12</td>
<td>31,300,277 – 39,658,917</td>
<td>3,273.75 – 4,147.99</td>
</tr>
<tr>
<td>Grade</td>
<td>No.</td>
<td>Age</td>
<td>Grade</td>
<td>Pay Range (Cedis)</td>
<td>Exchange Rate</td>
<td></td>
</tr>
<tr>
<td>---------------------------</td>
<td>-----</td>
<td>-----</td>
<td>-------</td>
<td>-------------------</td>
<td>---------------</td>
<td></td>
</tr>
<tr>
<td>Senior Technical Officer</td>
<td>1</td>
<td>35</td>
<td>36</td>
<td>26,999,894 – 34,210,130</td>
<td>1 USD = 9,561</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>11</td>
<td>2,823.96 – 3,578.09</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Technical Officer Grade I</td>
<td>1</td>
<td>39</td>
<td>40</td>
<td>23,290,346 – 29,509,958</td>
<td>2,435.97 – 3086.49</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>10</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Technical Officer Grade II</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>20,090,457 – 25,455,549</td>
<td>2,101.29 – 2662.44</td>
<td></td>
</tr>
</tbody>
</table>

Source: Min. of Finance & Economic Planning, Report of the Committee to Review placement and correct distortions within the Ghana Universal Salary Structure for the Civil service, September, 2006 and Case Study Data, December 2007. 1USD = 9,561
# Appendix X: The Country, Region and Institutional Distribution of Diploma and B.Sc. Graduates

<table>
<thead>
<tr>
<th>Country</th>
<th>Region</th>
<th>Ministry of Food &amp; Agriculture</th>
<th>Research &amp; Higher Institution</th>
<th>Cocoa Board</th>
<th>NGO</th>
<th>Private (Banks, Industry, farmers)</th>
<th>Total</th>
<th>*Actual Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ghana</td>
<td>Ashanti</td>
<td>39</td>
<td>45</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>87</td>
<td>81</td>
</tr>
<tr>
<td></td>
<td>Brong Ahafo</td>
<td>27</td>
<td>31</td>
<td>2</td>
<td>3</td>
<td>1</td>
<td>64</td>
<td>60</td>
</tr>
<tr>
<td></td>
<td>Central</td>
<td>25</td>
<td>34</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>62</td>
<td>57</td>
</tr>
<tr>
<td></td>
<td>Eastern</td>
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<td>24</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>56</td>
<td>53</td>
</tr>
<tr>
<td></td>
<td>Greater Accra</td>
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<td>13</td>
<td></td>
<td>1</td>
<td>1</td>
<td>50</td>
<td>46</td>
</tr>
<tr>
<td></td>
<td>Northern</td>
<td>31</td>
<td>21</td>
<td>1</td>
<td>3</td>
<td>1</td>
<td>57</td>
<td>54</td>
</tr>
<tr>
<td></td>
<td>Upper East</td>
<td>21</td>
<td>16</td>
<td></td>
<td>3</td>
<td>1</td>
<td>37</td>
<td>35</td>
</tr>
<tr>
<td></td>
<td>Upper West</td>
<td>16</td>
<td>14</td>
<td></td>
<td>1</td>
<td></td>
<td>31</td>
<td>28</td>
</tr>
<tr>
<td></td>
<td>Volta</td>
<td>18</td>
<td>20</td>
<td></td>
<td></td>
<td></td>
<td>38</td>
<td>36</td>
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<tr>
<td></td>
<td>Western</td>
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<td>24</td>
<td>1</td>
<td>1</td>
<td>3</td>
<td>1</td>
<td>52</td>
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<tr>
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<tr>
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<td>Travelled</td>
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<td></td>
<td>Deceased</td>
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<td></td>
<td>Burkina Faso</td>
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<td></td>
<td></td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Nigeria</td>
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<td></td>
<td>1</td>
<td></td>
<td></td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>Malawi</td>
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<td>4</td>
<td></td>
<td></td>
<td>1</td>
<td>7</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Mozambique</td>
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<td></td>
<td></td>
<td></td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Subtotal</td>
<td>291</td>
<td>252</td>
<td>4</td>
<td>1</td>
<td>4</td>
<td>4</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>Graduates working with other organizations</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>33</td>
</tr>
<tr>
<td></td>
<td>Total Number of students trained at B.Sc. Level</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>315</td>
</tr>
<tr>
<td></td>
<td>Total Number of Students trained at Diploma Level</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>261</td>
</tr>
</tbody>
</table>

Source: Field Data, December, 2007

* Actual total because some graduates from the Diploma programme have continued at the B.Sc. Level at Cape Coast.
# Appendix XI: Distribution of the Status of Post-Graduation Academic Progressions of Graduates by Certification level and Institution as of December, 2007

<table>
<thead>
<tr>
<th>Certification Level</th>
<th>UCC</th>
<th>UG</th>
<th>KNUST</th>
<th>Foreign</th>
<th>UCC</th>
<th>UG</th>
<th>KNUST</th>
<th>UDS</th>
<th>UEW</th>
<th>Foreign</th>
<th>Sub-total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diploma to B.Sc.</td>
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<td></td>
<td></td>
<td></td>
<td>25</td>
<td></td>
<td></td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>48</td>
</tr>
<tr>
<td>Diploma to Masters</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td></td>
<td></td>
<td>1</td>
<td></td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>Diploma to B.Sc. to Masters</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>B.Sc. to Post Graduate Diploma</td>
<td>1</td>
<td>3</td>
<td></td>
<td></td>
<td>6</td>
<td>9</td>
<td>6</td>
<td></td>
<td></td>
<td></td>
<td>5</td>
</tr>
<tr>
<td>B.Sc. to Masters</td>
<td>13</td>
<td>7</td>
<td>11</td>
<td></td>
<td>6</td>
<td>9</td>
<td>6</td>
<td>1</td>
<td></td>
<td></td>
<td>53</td>
</tr>
<tr>
<td>B.Sc. to Ph.D.</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td></td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Sub-total</td>
<td>35</td>
<td>7</td>
<td>16</td>
<td></td>
<td>35</td>
<td>9</td>
<td>6</td>
<td>1</td>
<td>1</td>
<td></td>
<td>113</td>
</tr>
</tbody>
</table>

Source: Field data, December, 2007

**Legend:**
- KNUST – Kwame Nkrumah University of Science and Technology
- UCC – University of Cape Coast, Ghana
- UDS - University of Developing Studies
- UEW - University of Education, Winneba
- UG - University of Ghana
- Foreign – Other Universities outside Ghana
Appendix XII: The Vision, Mission, Philosophy, Intended Audience and Objectives of the B.Sc. Agricultural Extension Programme at the School of Agriculture, University of Cape Coast, Ghana

**Vision of the Programme**

The vision of the B.Sc. Agricultural Extension programme for mid-career extension staff is to provide a dynamic, flexible and demand-driven training programme for extension staff in Ghana. The University of Cape Coast, in collaboration with the Ministry of Food and Agriculture, Sasakawa Africa Association, Winrock International Institute for Agricultural Development and other interested organizations, will strive to develop a centre of excellence with competencies and capability to satisfy the extension training needs of mid-career extension staff and other rural development staff in Ghana in particular, and sub-Saharan Africa in general.

**The Mission of the Programme**

The mission is to develop a centre of excellence at the University of Cape Coast for training agricultural extension staff for the benefit of Ghana and other African countries.

This will be accomplished by:
- Building the human resource capacity (qualified and adequate teaching and support staff) for extension training;
- Development and implementing responsive curriculum and courses for training staff at various levels;
- Utilizing proven educational process and methods which combine formal classroom instructions with experiential learning, leadership and personal development;
- Providing the physical infrastructure (training hostels), equipment and materials (computers, audio-visual equipment and other teaching aids) for extension training;
- To carry out systematic monitoring and evaluation of the training programme and utilize the findings for programme improvement.

**Philosophy of the Programme**

The B.Sc. Agricultural Extension degree programme is designed in every way possible to be practical. The programme will stress relevance to the day-to-day pragmatic needs of extension workers who have already distinguished themselves in their extension careers as people effectively working with farmers and creating linkages with researchers. Of necessity, the programme will help students develop excellence in numerous areas of technical agriculture, including newly emerging areas of study such as beekeeping, mushroom farming and aquaculture. In addition to technical agriculture, students will “learn how to learn” more effectively. Critical thinking skills development, problem-solving strategies, systems thinking capabilities, and development of life-long learning attitudes will be emphasized. However, the programme will not pursue academic knowledge at the expense of isolating students from regular contact with farmers and community members. An innovative feature of the programme
will be the implementation of individual or group supervised enterprise projects (SEPs). The SEPs will give students the opportunity to actually experience the realities of farming and agribusiness through planning, management and evaluation of their action-oriented, client-focused projects. After completion of their training, graduates will return to their jobs prepared to provide competent technical and practical extension programme, and to serve as leaders in their respective organizations.
## Appendix XIII: The Type Technologies and Estimated Cost of Student SEPs for 2007/2008 at University of Cape Coast

<table>
<thead>
<tr>
<th>Type of Technology</th>
<th>Equipment and materials</th>
<th>Labour and Resource Persons</th>
<th>Transportation and Fuel</th>
<th>Stationery &amp; Secretarial</th>
<th>Total (Cedis)</th>
<th>Total ($)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Soil amendment and pest management practices</td>
<td>1040000</td>
<td>6280000</td>
<td>1920000</td>
<td>1260000</td>
<td>10500000</td>
<td>1098.21</td>
</tr>
<tr>
<td>Bee keeping</td>
<td>3745000</td>
<td>200000</td>
<td>1500000</td>
<td>3200000</td>
<td>8645000</td>
<td>904.19</td>
</tr>
<tr>
<td>Cultivation of Sikamo rice variety</td>
<td>2470000</td>
<td>1300000</td>
<td>1270000</td>
<td>460000</td>
<td>5500000</td>
<td>575.25</td>
</tr>
<tr>
<td>Cultural practices in mango production</td>
<td>9160000</td>
<td>4400000</td>
<td>3500000</td>
<td>1870000</td>
<td>18930000</td>
<td>1979.92</td>
</tr>
<tr>
<td>Facilitating the adoption of snailery</td>
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Subtotal: 271834847 | 28431.63 |
Average: 10067957 | **1,053.02**

Source: Department of Agricultural Economics and Extension, UCC, Cape Coast
Appendix XIV: Pictures of Some of the Rehabilitated and Refurbished Infrastructure at Kwadaso Agricultural College

Martinson House (Renovated)

Administration Block at KAC (Renovated)

Computer Room at KAC (Renovated)
SAFE Alumni Office at KAC

Desktop Computer inside Alumni Office at KAC

Renovated Classroom and Grounds at KAC
The Science Laboratory at KAC (Renovated)

Home Economics Department at KAC (Equipped)
Appendix XV: Pictures of Technology Village, UCC

The Crop House for Mushroom Production at Technology Village, UCC

Bagged Mushroom inside the Crop House at Tecnology Village at UCC
The Snailery at Technology Village showing various Management systems

The Gari Processing Shed and Improved Chimney at Technology Village, UCC

External view of Smoker House at Technology Village, UCC
The Smoker for Meat Processing at the Technology Village, UCC

Wet and Dry Processing Machines at the Technology Village, UCC
Proto-Type Battery Cages for Grascutter at Technology Village at UCC

Floor-Type Cages for Grascutter at Technology Village at UCC
Appendix XVI: Pictures of Sasakawa Centre Student Hostel, Conference Facility, Offices Restaurant and Chalets at UCC

Front View of Sasakawa Students Hostel, UCC

Inside View of Sasakawa Students Hostel, UCC
Front View of Office Extension, UCC

Front View of Sasakawa Restaurant, UCC
Front View of Sasakawa Chalets, UCC
Foundation Plan of the Sasakawa Students Hostel
Foundation Plan of the Sasakawa Students Hostel
Ground Floor Plan for Offices Extension
Layout Plan for Offices Extension
Electrical Layout of Office Extension
Windows and Door Schedules for Offices Extension
Detail Plan of Student Cubicle at Students Hostel
Front Elevation and Plan of Sasakawa Students Hostel, Conference Room and for Offices
Elevations of the Sasakawa Centre hostel, and Office Extension
Roof plan for Sasakawa Hostel and Offices
Detail Roof Plan
Electrical Layout of Sasakawa Chalet
Window and Door Schedule Plan the Sasakawa Chalet
Back and Front Elevations of the Sasakawa Chalet
SIDE ELEVATION

corr. aluminium ridge cover
corr. aluminium sheet

6" x 2" purlin
150 x 50

6" x 2" sproket
100 x 50
3" x 2" purlin at fascia

chip board

8" x 1" fascia board
200 x 25

terrazzo finish

Side Elevation and Roof Plan of the Sasakawa Chalet
Windows and Doors Schedule of the Sasakawa Restaurant

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Details of Sections and Layout of the Sasakawa Restaurant
Foundation Plan of the Sasakawa Restaurant
Roof Plan of the Sasakawa Restaurant