

# MONITORING OF SCARDA-INDUCED INSTITUTIONAL CHANGES AT THE BOTSWANA COLLEGE OF AGRICULTURE, BOTSWANA

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**Table of Contents**

Abbreviations & Acronyms ..... 3

Summary ..... 5

Introduction ..... 6

Approach to the institutional review ..... 7

General Changes in institutional factors ..... 7

    Mandate and Functions ..... 7

    Strategy and Structure ..... 8

    Staffing ..... 9

    Management and funding ..... 11

    Infrastructure ..... 12

    Collaborations and linkages ..... 12

    Impact and reputation ..... 13

Changes in the SWOT factors ..... 14

SCARDA contribution to BCA institutional changes ..... 15

Updated SWOT table ..... 16

Conclusions ..... 19

References ..... 19

Appendices ..... 21

## **ABBREVIATIONS & ACRONYMS**

AIS	Agricultural Innovation System
ANAFE	African Network for Agriculture, Agroforestry and Natural Resources Education
BCA	Botswana College of Agriculture
CAADP	Comprehensive Africa Agriculture Development Program (of NEPAD)
CICE	Centre for In-service and Continuing Education
CTA	The Technical Centre for Agricultural and Rural Cooperation
DAR	Department for Agricultural Research, Botswana
EDD	Economic Diversification Drive (an initiative of the Ministry of Trade and Industry, Botswana)
ERP	Enterprise Resource Planning (formerly SAGE ACCPAC)
EU	European Union
FARA	Forum for Agricultural Research in Africa
FCB	Forest Conservation Botswana
FPR	Farmer Participatory Research
GDP	Gross Domestic Product
GEF	Global Environmental Facility
GOB	Government of Botswana
ICT	Information & Communications Technology
IEC	Information, Education and Communication
ILRI	International Livestock Research Institute
ITS	Integrated Tertiary System
M&E	Monitoring & Evaluation
MITI	Meat Industry Training Institute
NDP10	10th Botswana National Development Plan
NEPAD	New Partnership for Africa's Development
PMS	Performance Management System
RUFORUM	Regional Universities Forum for Capacity Building in Agriculture
SADC	Southern Africa Development Community
SAHA	Students Against HIV/AIDS
SASACID	Strengthening Africa's Strategic Agricultural Capacity for Impact on Development
SASSCAL	Southern African Science Service Centre for Climate Change and Adaptive Land Management

SCARDA	Strengthening Capacity for Agricultural Research and Development in Africa (A DfID-funded continental project coordinated by FARA, 2008 – 2010)
SIDA	Swedish International Development Agency
SIFB	Small-stock Industry Federation of Botswana
SLU	Swedish University of Agricultural Sciences
SRC	Student Representative Council
SWOT	Strengths, Weaknesses, Opportunities and Threats
UB	University of Botswana
UNDP	United Nations Development Program
UNOPS	United Nations Office for Project Services
USAID	United States Agency for International Development
VIP	ASAGE payroll and human resource management solution

## SUMMARY

This is the second post-implementation review conducted by FARA to determine institutional changes in the Botswana College of Agriculture (BCA) since completion of SCARDA activities in 2010. The first one was conducted in 2011 and gave an overall picture of positive changes based on the SWOT methodology.

Generally, BCA has registered positive incremental changes in a number of key areas including academic programs, human capital, physical infrastructure, ICT-based management systems, and collaborative partnerships over the last two years. Moreover, of the 42 SWOT factors identified for BCA in 2011, 29 were unchanged, nine showed positive changes, four were removed and four were rephrased. One change that was remotely attributable to SCARDA implementation at BCA was the increase in well-qualified and competent staff.

Five additional factors were also identified. The newly added “Strength” factor of ‘capacity for external resource mobilization’ also has direct links to SCARDA. A number of BCA staff were trained in proposal writing and resource mobilization techniques under SCARDA and have since leveraged on the ‘capacity built’ from these trainings to secure internal and external research funds. However, funding has continued to be a challenge and the gender parity situation has not improved either.

## INTRODUCTION

The Botswana College of Agriculture (BCA) has been the sole institution mandated to offer tertiary agricultural education and training in Botswana. Further, BCA and the Department for Agricultural Research (DAR) together constitute Botswana's primary agricultural research and development institutions. In 2008, the two institutes accounted for about 80% of total agricultural research expenditures in Botswana (Stads and Pholo, 2011). Due to the dual strategic mandates, BCA was selected for implementation of the Strengthening Capacity for Agricultural Research and Development in Africa (SCARDA) program (FARA, 2008). SCARDA was implemented for 2 ½ years between 2008 and 2010 and sought to improve the human and managerial capacity of the focal institutes.

In 2011, the Forum for Agricultural Research in Africa (FARA) commissioned case studies to "determine the dispositions of selected focal institutes (including BCA) upon completion of project activities as well as a longitudinal analysis of the change processes registered in the organizations". For BCA, the findings indicated that of the 41 SWOT factors identified in 2008, 17 had not experienced any significant change, eight had deteriorated, 16 had improved and four weaknesses had been eliminated from the updated SWOT table (Roseboom, 2011). Further, SCARDA seemed to have made an important, and perhaps lasting, contribution in the following areas:

- (1) Introduction of the innovation platform concept and strengthening the links between the various stakeholders along the value chain, particularly in the smallstock sub-sector;
- (2) Improving the skills of staff to write business-winning project proposals; and
- (3) Raising the awareness of staff of the importance of M&E

In all three instances, substantial numbers of BCA staff members were trained, which has helped to create a qualitative stock of capacity on these topics within BCA. On organizational and managerial changes, BCA seemed to operate quite independently and had a clear vision of what it wants to achieve. In this regard, SCARDA played more of an assisting than a leading role.

The present review was conducted by FARA as a follow-up to the 2011 case study to determine incremental changes in the SWOT factors and assess the status of some key indicators of

organizational performance of BCA. In the end, this is expected to institutionalize self-monitoring of change within the College.

## **APPROACH TO THE INSTITUTIONAL REVIEW**

The methodology outlined by Annor-Frempong et al. (2011) based on analysis of changes in SWOT factors was followed. Background information and SWOT changes were adduced in face-to-face interviews or group discussion with a team of key management staff of BCA. Where necessary, further information was obtained from official online publications posted on BCA and other Government of Botswana (GOB) websites.

In determining the changes in SWOT factors, the management and staff of BCA were asked to respond to the following questions (with reference to the SWOT tables compiled in 2011):

1. Whether the listed SWOT issues have improved, stayed the same or deteriorated and why (if possible substantiate the change quantitatively).
2. Which listed SWOT issues are no longer relevant or moved from one quadrant to another;
3. Whether new issues should be added to any of the quadrants of the SWOT table; and
4. Rank the different issues in each quadrant

Due to time constraints, it was not possible to rank the SWOT factors in the group discussion sessions, but the authors attempted pairwise ranking of factors in some quadrants.

## **GENERAL CHANGES IN INSTITUTIONAL FACTORS**

### **Mandate and Functions**

An Act of Parliament established BCA in 1991 as a body corporate and a parastatal under the Ministry of Agriculture and an associate institution of the University of Botswana (UB). Interestingly, whilst the Ministry of Agriculture specifies BCA as a constituent parastatal on its website (<http://www.moa.gov.bw/?nav=parastatals>), the UB does not correspondingly identify with the College as an associate institution on its website (<http://www.ub.bw/>). Apparently, BCA relies on UB for mentorship on academic programming, but reports to and fully subscribes to the policies of the Ministry of Agriculture.

In many African countries, degree-awarding institutes traditionally report to the Ministry of Education. Faculties of Agriculture in such institutes face the challenge of having to subscribe to the Ministry of Education policies yet address strategic issues in the Ministry of Agriculture, especially in terms of human capital, research and outreach. Understandably, both funding and strategic orientation of such Faculties are challenged by this bifurcation. This also explains the scanty engagement of Faculties of Agriculture in the CAADP Roundtable Processes (a process normally spearheaded by the Ministry of Agriculture) in many CAADP post-compact countries. In the case of BCA, the near complete alignment with the Ministry of Agriculture is of strategic advantage to the nascent CAADP Process in Botswana.

The College offers degrees, diplomas and certificates in various agricultural disciplines. The BCA Act has not changed over the last 22 years and the mandate is still threefold, thus: innovative teaching, relevant research and customer-driven service. However, an amendment to the Act would be imperative for BCA to achieve its stated vision of ‘becoming an agricultural university of international repute’. Current developments point to the possible enactment of a single Act of Parliament for establishing universities in Botswana in the near future, an institutional innovation that would hasten BCA’s transformation into a fully-fledged university. This will position BCA as a premier institution for producing needed skills and competencies to drive necessary growth that will make agriculture a key sector for poverty alleviation in Botswana. This is in keeping with the Economic Diversification Drive (EDD) initiative of the Ministry of Trade and Industry aimed at reducing traditional over-dependence on extractive industries.

There is also the prospect of BCA and Botswana International University of Science and Technology merging into a single university in the future. In the SWOT analysis conducted for BCA in 2011, such a possibility was conceived as a threat perhaps as it portended the marginalization of non-degree agricultural training in the country or obfuscation of BCA’s social capital gained over the years.

## **Strategy and Structure**

The College has a Strategic Plan (2009 – 2016), which aligns with Vision 2016, Botswana’s development blueprint ‘to inspire socio-economic and political transformation into a competitive, winning and prosperous nation’. Vision 2016 recognizes the decline in Botswana’s agricultural sector over the last 42 years in terms of its contribution to GDP and that a turn-around in the sector requires the development of human capital to spearhead innovations.



The organizational structure of the College comprises of the Principal, Vice Principal, Dean of Faculty, and Heads of Academic and Administrative Departments. The Principal reports directly to BCA's Governing Council chaired by the Permanent Secretary, Ministry of Agriculture. Over the last two years, there has been no change in the BCA organizational structure, save for the formation of the Department of Food Science and Technology in 2009. Further, the Meat Industry Training Institute (MITI), formerly the Meat Inspection Centre, became a constituent institute of BCA in 2012. The Institute trains various personnel in the meat industry and awards meat inspection certificates.

Currently, BCA offers the following academic programs:

- Higher Diplomas in Agriculture, Animal Health and production and Forestry and Range Ecology and a Diploma in Agricultural Extension.
- Bachelor of Science Degrees in Agriculture, Agricultural Economics, Agricultural Education, Agricultural Extension, Agricultural Mechanisation, Animal Science, Crop Science, Food Science and Technology and Soil and Water Conservation Engineering.
- Masters of Science Degrees in Agricultural Education, Agricultural Engineering, Animal Science and Crop Science
- Master of Philosophy/Doctor of Philosophy Degree in Animal Science.

Programmes introduced in the last two years in response to market demands are BSc in Agricultural Extension in 2011, MPhil/PhD in Animal Science in 2012 and Diploma in Agricultural Extension in 2013. As indicated above, MITI and the Centre for In-service and Continuing Education (CICE) are also functional units of BCA, the latter serving as its outreach arm that delivers quality in-service and continuing education training in agriculture and rural development.

## **Staffing**

As shown in Appendix 1, the total BCA staff endowment currently stands at 478 comprising of academic – 111, technical – 55, and support - 312. For academic staff, the proportion of women scientists is 20%. For both academic and technical staff, the proportion of women is 22%. For all staff (academic, technical, support and administrative), the proportion of women is 42%. Under SCARDA, a minimum of 30% women representation in all activities was specified as a global indicator for engendering the program. In 2008, just as SCARDA was starting, a gender study by the Women's Affairs Department in the Ministry of Labor and Home Affairs reported that the proportion of women in decision-making positions were 37%, 26% and 29% in the public service,

Ministry of Agriculture and Botswana College of Agriculture, respectively (GOB, 2008). Unfortunately, the current gender parity situation - especially for scientific staff - at BCA does not seem to reflect the SCARDA spirit and falls below the baseline proxy of 2008. Moreover, institutional provisions (like a dedicated gender unit, gender coordinator or gender strategy) to mainstream gender issues within the College are non-existent.

A total establishment of 200 is specified for technical and academic staff and 173 positions (or about 87%) are currently filled. However, the College had been without a Principal for a number of months since the term of the previous one expired early in May 2013. The post of a Vice Principal is not filled and the current situation probably predisposed the institution to an administrative quandary. A new Manager of College Services (or Registrar) was recruited within the last two years and progress has been made in terms of results-based management techniques. For example, a Performance Management System (PMS) was instituted in 2011 to help in monitoring and reporting of staff performance.

The Botswana HIV/AIDS incidence is one of the highest in the sub-region and the College has been plagued by serial staff absence and under performance due to this condition. However, government-backed management strategies coupled with local awareness campaigns have served to ameliorate the effects of HIV/AIDS within the College. Especially, CICE has been active in promoting HIV/AIDS workshops and seminars that have contributed to awareness creation and behavior change. To underscore the importance BCA attaches to management of HIV/AIDS, the College has an HIV/AIDS Coordinator who is responsible for:

- Developing, coordinating and implementing the HIV/AIDS Policy and programmes.
- Coordinating the activities of HIV/AIDS Committee and departmental activity plans.
- Developing Information, Education and Communication (IEC) strategies on HIV/AIDS in order to prevent and control the spread of HIV/AIDS in the College.
- Providing support and counselling services to staff members and students.

The HIV/AIDS Coordinator is assisted by an active HIV/AIDS Committee consisting of a representative from each of the academic and administrative departments and two students. An Executive Committee comprising the BCA Management and Heads of Departments also exists with the Principal as its chair. The Students Against HIV/AIDS (SAHA) Club completes the institutional response framework against the pandemic. Consequently, whereas HIV/AIDS was indicated as one of threats in the BCA SWOT analysis conducted in 2011, the situation has

changed quite positively and staff absenteeism in terms of sick leave and attrition is significantly reduced.

## **Management and funding**

As an associate institution of the University of Botswana, BCA uses some of UB guidelines for internal management processes such as teaching, research planning, academic priority setting and budgeting. Ordinarily, allocation of faculty time (for teaching and research scholars) is as follows: teaching – 40%; research – 40%; and service - 20%. The College does not have a formal research policy *per se*, mainly relying on UB operational policies. However, a Research and Publication Committee responsible for funding and funding prioritization exists.

The main source of funding for BCA is the Government (through the Ministry of Agriculture) accounting for about 80% of the total annual budget. There is an allocation for short- and long-term training of staff on an annual basis and currently there are about 30 staff members undergoing either PhD or MSc trainings locally and abroad. The Human Resources Department undertakes recruitment and coordination of training. Between 2008 and 2010, SCARDA also sponsored two BCA staff for MSc training on key technical areas.

Part of the budgetary allocation to BCA (about 1%) goes into research. This is disbursed to staff on a partially competitive, but mainly first-come-first-served, basis. External funding for the College derives from successful responses to calls for research proposals from external agencies like EU, RUFORUM, SIDA, Millennium Seed Bank (UK), and USAID. Currently, funded projects are in the following areas: under-utilized crops (e.g. Morama bean and Bambara groundnut), dairy goats, water conservation, monitoring of weather patterns for farmer warning systems (precision agriculture) under the SASSCAL, a regional project including Zambia. Others include a biogas project by GEF (Forestry Conservation Botswana, FCB funded by UNDP), ANAFE's SASACID project and a joint collaborative project on climate-smart agriculture with Durban University of Technology (South Africa) and University of Nairobi (Kenya).

A fully-fledged Finance Department with competent staff manages the College's financial resources based on recommended procurement and audit procedures and processes. An Internal Audit Unit also exists at BCA. The College does not have a structured M&E system although some staff members have attended M&E trainings conducted by CTA and ILRI. A sub-regional M&E training was also conducted by CTA under SCARDA in Namibia, which was attended by three BCA staff members.

ICT-based management systems have been installed at the College including a performance management system (PMS) to track staff performance, a VIP system for personnel management, a financial management software (ACCPAC), and an Enterprise Resource Planning (ERP) system (known as Integrated Tertiary System - ITS) for student management.

A communication policy for the College was drafted in 2010, but has not been operationalized. Some communication functions currently undertaken by BCA include publication of a weekly information bulletin within the Campus, conducting a stakeholder satisfaction survey, and developing and maintaining the College website. In terms of handling students grievances and personal challenges, specific students are assigned to personal tutors i.e. academic staff members with whom students consult on personal and official matters. Further, the Student Representative Council (SRC) meets with the BCA Management at least once in a semester. Students are also represented in various academic and governance committees, including the BCA's Governing Council.

### **Infrastructure**

In the 10<sup>th</sup> Botswana National Development Plan (NDP 10) of 2009, the role of BCA falls under the Agricultural Skills Development Programme and, in this regard, the Government of Botswana has a budgetary provision for capital investment (expansion of teaching and research facilities) and recurrent expenditures for the College. Due to the global economic downturn, major infrastructural project proposals submitted by BCA to the Government under the NDP 10 are largely in abeyance.

The few infrastructural developments in the recent past under NDP 9 include a new Computer Science and Physics Laboratory completed in 2011 to ease the problem of perennial backlog caused by failures in Physics. For some reason, pre-tertiary training and performance in Physics has been a national concern in Botswana over the years. In addition, a new 250-seater lecture theatre, a new mechanical workshop and a microbiology, meat processing and tissue culture laboratories were completed within the last two years.

### **Collaborations and linkages**

Between 2007 and 2013, BCA brokered 20 collaborations and partnerships, 35% of which were local and 75% international (Appendix 2). International partnerships were predominantly (70%) with other African countries and institutions, while engagements with the Northern institutions (mainly in the USA, UK, Finland, Italy and Sweden) accounted for about 30%. Eighteen

partnerships are currently active, while two have stalled due to lack of funding. The partnerships cover various domains including capacity strengthening, collaborative research, germplasm preservation and farmer engagements. Capacity strengthening (i.e. postgraduate and other technical trainings, curricula development, and student and staff exchange) accounts for nearly 50% of active engagements.

In the last two years, collaborations were forged in the areas of capacity strengthening for agribusiness and remote sensing, research funding, and student and staff exchange as listed below:

- Cooperation Agreement with the University of Pavia, Italy, on student and staff exchange as well as research collaboration over the period 2011 - 2016. A student from Pavia was attached to a BCA research project in 2010.
- MoA with Swedish University of Agricultural Sciences (SLU), Sweden, on collaborative research project on Morama bean funded by the Swedish International Development Agency (SIDA) for the duration 2011-2014. The research focuses on technologies on cultivation, processing, and value addition of Morama bean.
- MoA with the African Network for Agriculture, Agroforestry and Natural Resources Education (ANAFE), Nairobi, Kenya, for implementation of a programme on Strengthening Africa's Strategic Agricultural Capacity for Impact on Development (SASACID) focusing on strengthening agribusiness in Southern Africa with BCA as Pilot Institution, 2012-2015. The project is just starting; aspects covered include agribusiness training and incubation strengthening at BCA and other institutions in the SADC Region.
- MoA with United Nations Office for Project Services (UNOPS), Botswana, on funding of BCA staff research project on biogas production from piggery waste, 2012- 2014. The project is on-going and focuses especially on sustainable disposal of piggery waste and generation of biogas.

The main engagement instruments include MoUs, contractual and cooperation agreements, and memberships of regional and continental networks.

### **Impact and reputation**

The impact and reputation of BCA at home is perceived as poor, due to lack of visibility (BCA came into being in 1991) resulting from failure to implement the communication strategy in addition to poor documentation and dissemination of BCA research outputs. Abroad, however, Webometrics ranking in 2012 placed BCA (as part of the UB) above other 'big' universities in

Africa. It was No. 39 in the first 100 list of African universities. Moreover, as an outreach activity, BCA conducts regular animal health clinics within the vicinity of 50-km radius. The service was initially fully funded by BCA, but is currently operating on a cost-recovery basis after complaints from private veterinarians who felt threatened by the College's 'philanthropic disposition'.

## **CHANGES IN THE SWOT FACTORS**

A summary of staff perception of SWOT changes is presented in Appendix 3 below. An overall positive institutional change emerges for BCA over the last two years. Of the 42 SWOT factors identified for BCA in 2011, 29 were unchanged, nine showed positive changes, four were removed and four were rephrased. Five additional factors were also identified.

In the 2011 report of institutional changes in the SCARDA FIs, the internal attributes of "Strengths" and "Weaknesses" were grouped into the following broad categories: management practices, human resources, infrastructure, output and impact, financial resources, external linkages, research approach, visibility and recognition, teaching issues and access to information (Annor-Frempong et al., 2012). Current status of BCA indicate that key improvements under 'Strengths' were in terms of human resources, physical infrastructure, management practices [notably an Enterprise Resource Planning (ERP) system for paperless accounting and procurement] and information access. Many staff promotions had been effected within the last two years that even surpassed the establishment especially at professorial level. This was possible by invoking a special dispensation criterion for deserving staff.

Two new factors were added under 'Strengths' regarding financial resources and teaching issues i.e. "capacity for external resource mobilization" and "new postgraduate programs", respectively. This makes a total of 13 factors identified under 'Strengths' mainly in the areas of management practices, human resource, teaching issues, and information access.

Most of the 15 factors under "Weaknesses" stayed the same except "poor implementation of performance review processes" that registered a positive improvement in line with the implementation of the performance management system starting in 2011. Under "Opportunities", there was an improvement in the demand for undergraduate and postgraduate programs offered by BCA. This was chiefly driven by continuing education needs of government employees and more enrolments into postgraduate training programs due to lack of jobs for graduates. The other factors under "Opportunities" remained largely the same, while three new ones were identified totalling nine factors. The newly included factors were 'favourable political

environment towards agriculture’, ‘renewed interest in agriculture on the global scene’, and favourable ‘continental policy environment on agriculture by NEPAD’.

As already alluded to above, the institutional response to the threat posed by HIV/AIDS at BCA has been remarkable and staff absenteeism due to sick leaves has significantly abated. Further, the Government has countered the negative perception of agriculture across the board by mounting positive efforts to promote agriculture in the local media, propagating success stories on agriculture, provision of funds, and initiating youth mentorship programs. Nevertheless, government funding to BCA has steadily declined in the last few years, and this has occasioned low staff morale.

## **SCARDA CONTRIBUTION TO BCA INSTITUTIONAL CHANGES**

Table 2 is extracted from Appendix 3 to show the SWOT factors that registered any change over the last two years. The only change that was remotely attributable to SCARDA implementation at BCA was the increase in well-qualified and competent staff. Specifically, Ms L. Lekgari of BCA qualified with an MSc degree in Biotechnology from Stellenbosch University, South Africa and Mr T. Mabaka graduated with an MSc in Applied Instrumentation and Control from the University of Glasgow Caledonian under the SCARDA program.

The newly added “Strength” factor of ‘capacity for external resource mobilization’ has direct links to SCARDA. A number of BCA staff were trained in proposal writing and resource mobilization techniques under SCARDA and have since leveraged on the ‘capacity built’ from these trainings to secure internal and external research funds.

It is instructive to note here that in spite of a course on ‘packaging of information for end-users’ conducted under SCARDA, information management and packaging for end-users still persisted as a weakness. Similarly, ‘poor linkages to extension and wider stakeholders’ were still cited as a weakness yet several BCA staff members attended a SCARDA-sponsored agricultural innovation system (AIS) workshop in 2010. However, the institutional innovation in the small-stock sub-sector inspired by the AIS workshop is noteworthy here. The workshop participants formed a Small-stock Innovation Platform that eventually engendered the Small-stock Industry Federation of Botswana (SIFB), an officially recognized umbrella body of all small-stock associations in Botswana.

**Table 1: SCARDA and Changes in BCA SWOT Factors**

	Change --, -, =, +, ++	SCARDA Contribution to Change ++, +, =	Description of SCARDA Contribution	Primary Contributor, if not SCARDA
<b>Strengths</b>				
# Well qualified, competent staff	+	+	Partial contribution through SCARDA training of BCA staff	Government of Botswana and other bilateral donors
# Ample classroom space at present student levels	+	None	None	Government of Botswana, NDP10
# Efficient accounting set-up	++	None	None	Government of Botswana, NDP10
# Access to ICT	+	None	None	Not determined
<b>Weaknesses</b>				
# Poor implementation of performance review processes (they exist on paper, but they are <b>not</b> implemented properly)	+	None	None	Not determined
<b>Opportunities</b>				
# Demand for postgraduate and undergraduate programmes	+	None	None	Not determined
<b>Threats</b>				
# HIV/AIDS	+	None	None	Government of Botswana and other bilateral donors
# Negative perception of agriculture	+	None	None	Government of Botswana and other bilateral donors
# Declining government funding	-	None	None	

## UPDATED SWOT TABLE

Table 3 shows the updated SWOT factors, with those in the “Strengths” quadrant ranked by the authors using pairwise comparison (Appendix 4). Fourteen factors were identified for “Strengths and Weaknesses”, seven for “Opportunities’ and ten for “Threats”. An attempt to derive strategic orientations from the SWOT attributes is presented in Appendix 5. As an example, some opportunity-Strengths strategies may include:

1) Expanding and improving access to programs through:

- Design of new undergraduate and postgraduate programs
- Decentralization and ICT-based pedagogy
- Accelerating transformation of BCA into a fully-fledged university (By November 2013, the Cabinet had approved that BCA transform into a university)

2) Improving outreach to end-users by:



- Designing and engaging in Farmer Participatory Research (FPR) approaches
- Establish a research coordination facility to booster external resource mobilization
- Engaging in CAADP country processes

On the other hand, Threats-Strengths strategies may include:

1) Ensuring financial sustainability by:

- Developing a resource mobilization strategy

2) Ensuring relevance to stakeholder demands by:

- Engaging in multi-stakeholder research undertakings
- Improving the quality and delivery of programs e.g. through performance appraisals and quality assurance

**Table 2: Updated and partially ranked SWOT table**

<b>Strengths(ranked by pairwise comparison)</b>	<b>Weaknesses</b>
1: Well, qualified, competent staff	#Insufficient innovative teaching methods e.g. e-learning
2: Ample classroom space at present student levels	# Insufficient linkages between teaching and research
3: Access to ICT	# Limited practical exposure for students
4: Strategic plan (2009 – 2016) in place, with clear performance indicators	# Poor research management
5: Capacity for external resource mobilization	# Low capacity in cutting-edge technologies e.g. biotechnology (rephrased)
6: Expertise available to the community	# Poor information management and packaging for end-users (rephrased)
7: Efficient approval process for research proposals	# Student: staff ratios too high in some departments
8: Efficient accounting systems in place	#Poor balance between teaching and research for individual staff
9: Income generation e.g. BCA Consult and BCA Farming Centre	# Poor monitoring of research and impact of outputs
10: Capacity to provide agricultural advisory services (AAS)	# Poor linkages of BCA research to policy and national priorities (rephrased)
11: Own journal affords ease of publication (BOJAAS)	# Poor linkages to extension and wider stakeholders
12: Having the Centre for In-Service and Continuing Education (CICE) as part of BCA	# Poor implementation of performance review processes (they exist on paper, but they are not implemented properly)
13: Administrative autonomy	# Poor marketing of BCA
14: Existence of new postgraduate programs	# Poor morale of staff and students
<b>Opportunities</b>	<b>Threats</b>
# Demand for postgraduate and undergraduate programmes	# Lack of a functional national agricultural innovation system (NAIS)
# Become a university (rephrased)	# Regional and local competition [esp. RSA]
# Availability of external funds and international expertise (rephrased)	# HIV/AIDS
# International collaboration on educational programmes	# Encroachment of Gaborone
#Favourable political environment towards agriculture	# Unreliable suppliers
#Renewed interest in agriculture on the global scene	# Brain drain
#Continental policy environment on agriculture by	# Negative perception of agriculture

NEPAD	
	# Declining government funding
	# Limited number of government bursaries for MSc and PhD students constraints the growth of the post-graduate programmes
	# Prospects on merger of BCA with the Botswana International University of Science and Technology by creating a lot of insecurity about the future of BCA (no longer a threat - Cabinet has approved that BCA become a university)

## CONCLUSIONS

Over the last two years, BCA has registered positive changes in a number of key areas including academic programs, human capital (training and promotion of staff as well as reduction in HIV/AIDS morbidity), physical infrastructure, ICT-based management systems, and collaborative partnerships.

Of the 42 SWOT factors identified for BCA in 2011, 29 were unchanged, nine showed positive changes, four were removed and four were rephrased. Five additional factors were also identified. This presented an overall picture of positive change. One change that was remotely attributable to SCARDA implementation at BCA was the increase in well-qualified and competent staff. The newly added “Strength” factor of ‘capacity for external resource mobilization’ also has direct links to SCARDA. A number of BCA staff were trained in proposal writing and resource mobilization techniques under SCARDA and have since leveraged on the ‘capacity built’ from these trainings to secure internal and external research funds.

However, funding has continued to be a challenge and the gender parity situation has not improved either.

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## APPENDICES

### Appendix 1: BCA staff disaggregated by gender

No	DEPARTMENT	CADRE	EST	FILLED	NOT FILLED	FEMALE	MALE
1	Office of the Principal	Academic	1	0	1	0	0
2	Office of Dean, FoA	Academic	2	2	0	0	2
3	AEE	Academic	21	16	5	4	11
		Technicians	2	2	0	0	2
4	AEL	Academic	19	17	2 frozen	2	15
		Technicians	10	10	0	1	9
5	ASP	Academic	28	23	3 frozen	3	20
		Technicians	13	13	0	4	9
6	BS	Academic	23	16	7	4	14
		Technicians	12	11	1	4	7
7	CSP	Academic	30	27	3	5	22
		Technicians	16	15	1	3	12
8	FST	Academic	6	6	0	3	3
		Technicians	4	4	0	2	2
9	MITI	Academic	3	3	0	1	2
		Technicians	2	0	0	0	0
	<b>Total</b>					<b>36</b>	<b>130</b>
	<b>ADMIN/SUPPORT STAFF</b>						
	Office of the Principal	Support	10	9	1 frozen	1	8
	Office of Dean, FoA	Support	9	8	1 frozen	5	3
	MITI	Support	10	1	9	1	0
	FINANCE	Support	34	33	1	21	12
	Dept Crop Sci & Prod (College Services)	Support	74	69		34	35
	LIBRARY	Support	20	18	2	10	8
	STUDENT SERVICES	Support	5	5	5	4	1
	CICE	Support	8	8	8	3	5
	ICW	Support	164	161	3	84	77
	<b>Total</b>					<b>199</b>	<b>279</b>

Key: OP = Office of the Principal; OD, FoA = Office of Dean, Faculty of Agriculture; AEE = Department of Agricultural Economics, Education and Extension; AEL = Department of Agricultural Engineering and Land Planning; ASP = Department of Animal Science and Production; BS = Department of Basic Sciences; CSP = Department of Crop Science and Production; FST = Department of Food Science and Technology; MITI = Meat Industry Training Institute; CICE = Centre for In-service and Continuing Education (CICE); ICW = ??

Appendix 2: Collaborations and partnerships with BCA

No	Name of Partner Organization	Country of Partner Organization	Type of Partnership	Main Objective	Focus Areas	Timeline and Duration	Current Status	Current & Past Outcomes
1	University of Nebraska – Lincoln, USA	United States of America	MoA renewable	Capacity building to improve food security in Botswana	1.Post graduate training, 2. Curriculum development, 3. Staff exchange visits 4. Establishment of extension in Botswana	2010-2015, five years	Project proposals being developed for funding	
2	University of Nebraska – Lincoln, USA	United States of America	Annual Contract Agreements since	Development of ecologically-based pest management of pests of sorghum in Botswana and USA	Integrated pest Management of sorghum pests with emphasis on breeding for resistance	2007-2013	On-going research collaboration	Promising sorghum varieties to be released
3	The Royal Botanic Gardens, Kew, UK	United Kingdom	MoC	Collect and conserve seeds of useful wild plants In Botswana	Seed collection and conservation at the KEW and local seed bank, propagation and planting of indigenous wild plants in communities	(2008-2013) renewable	On-going	Tree nurseries established, community gardens established, training of local communities in processing and marketing of wild useful plants such as morama, desert truffles etc
4	Botswana Horticultural Council	Botswana	MoU	To assist farmers with technologies and expertise and farmers to provide farms for student attachments	Horticultural extension advice and student attachments	2009-2014 renewable	On-going	Collaboration with farmers on student training and curriculum development; sharing of BCA expertise with farmers
5	Department of Agricultural Research (DAR)	Botswana	MoU	Sharing of resources for research and training	Research collaboration, graduate student supervision, sharing of resources for	2009-2014 renewable	On-going	Research collaboration, sharing of resources

No	Name of Partner Organization	Country of Partner Organization	Type of Partnership	Main Objective	Focus Areas	Timeline and Duration	Current Status	Current & Past Outcomes
					research			
6	National Food Technology Research Centre	Botswana	Draft MoU for signing	Sharing of resources for student training and research collaboration	Joint research, sharing of facilities for student training		On-going	Research collaboration, student use of facilities for practicals
7	The Institute for Scientific and technological Research (IRST), Rwanda	Rwanda	MoU	Research collaboration and staff exchange	Research collaboration and staff exchange	2007-2012	Not active due to lack of funding	
8	Institute of Agriculture and Animal Husbandry (ISAE), Rwanda	Rwanda	MoU	Research collaboration and staff exchange	Research collaboration and staff exchange	2007-2012	Not active due to lack of funding	
9	North Karelia University of Applied Sciences, Finland, Mikkeli University of Applied Sciences, Finland	Finland	Cooperation of Agreement	Student and staff exchange and joint courses	Student and staff exchange and joint courses	2007-2010 renewed to 2013	On-going	BCA students funded to do a semester in Finland and Finish student coming to BCA for a semester; joint field courses run
10	Forest Conservation Botswana	Botswana	MoU	Funding of research by BCA staff	Funding of research by BCA staff	2010-2013	On-going	Two research projects funded
11	Council for Scientific and Industrial Research, Pretoria, South Africa	South Africa	MoU	Collaborative research on scientific validation of remedies HIV/AIDS in Southern Africa	Assessing scientific basis of some of the traditional medicines claiming to manage HIV/AIDS	2010-2013	On-going	Project still seeking funding
12	Regional Universities Forum for Capacity Building in Agriculture (RUFORUM), Kampala, Uganda	Uganda	Membership and MoUs	Graduate training and research funding for capacity building	Graduate training, curriculum development and research grants	Member since 2009	On-going	Research grants, graduate scholarships for BCA students, participation in RUFORUM annual meetings and conferences
13	University of Pavia, Italy	Italy	Cooperation Agreement	Student and staff exchange, research collaboration	Student and staff exchange, research collaboration	2011 -2016	On-going but not very active	A student from Pavia attached to BCA research project
14	Swedish University of Agricultural	Sweden	MoA	Collaborative research project on Morama	Collaborative research on Morama	2011-2014	On-going	Technologies on cultivation and

No	Name of Partner Organization	Country of Partner Organization	Type of Partnership	Main Objective	Focus Areas	Timeline and Duration	Current Status	Current & Past Outcomes
	Sciences (SLU), Sweden			bean funded by the Swedish International Development Agency (SIDA)	Bean			processing, value addition of Morama bean
15	Department of Meteorological Services (AMESD SADC THEMA Project), Gaborone Botswana	Botswana	MoU	To enhance management of agricultural and environmental resources in support of sustainable development through use of earth observation technology	Capacity building in remote sensing for agriculture and environment resource monitoring	2010-2013	On-going	Capacity building and improved access to earth observation data
16	African Network for Agriculture, Agroforestry and Natural Resources Education (ANAFE), Nairobi, Kenya	Kenya	MoA	Implementation of a programme on Strengthening Africa's Strategic Agricultural Capacity for Impact on Development (SASACID)	Strengthening Agribusiness in Southern Africa with BCA as Pilot Institution	2012-2015	Just starting	Agribusiness training and incubation strengthened at BCA and other institutions in the SADC Region
17	Local Enterprise Authority, Gaborone, Botswana	Botswana	Draft MoU drafted	Training of young agribusiness entrepreneurs	Agribusiness incubation and training for BCA graduates	Not applicable	On-going	BCA graduates undertaking 10 month training in agribusiness (poultry and horticulture) with BCA funding and LEA business support
18	African Network of Scientific and Technological Institutions (ANSTI), Nairobi, Kenya	Kenya	Membership	Funding opportunities for staff to attend conferences and short courses	Funding opportunities for staff to attend conferences and short courses	2008 to present		Staff attending short courses and conferences for capacity building
19	Association of African Universities (AAU)	Ghana	Membership	Funding opportunities for, graduate training, conferences, and short courses.	Funding opportunities for, graduate training, conferences and short courses.	2008		Staff attending short courses and conferences for capacity building
20	United Nations Office for Project Services (UNOPS)	Botswana	MoA	Funding of BCA staff research project.	Funding of BCA staff research on biogas from piggery waste	2012- 2014	On-going	Sustainable disposal of piggery waste and generation of biogas



### Appendix 3: Changes in BCA SWOT factors since 2011

	Change --,-,=,+,,++	Explain in a few words why the change has taken place or not	If possible, back up the change quantitatively (i.e. % change)
<b>Strengths</b>			
# Well qualified, competent staff	+	Some professors have left; lots have been promoted; more in place than the establishment e.g. at professorial level (special dispensation is used where there is a deserving officer – only for academic staff)	
# Ample classroom space at present student levels	+	A new 250-seater lecture theatre, Machinery Workshop, Physics lab, Microbiology lab, Tissue culture lab and Meat processing lab completed towards the end of 2011; ; failure rate in Physics causes a backlog – 1 <sup>st</sup> year courses mainly (teaching of science at pre-college a problem);	10%
# Publication through own journal [BOJAAS]	=	Still running; contributors from all over Africa; to be made online; peer reviewed	
# Efficient accounting set-up	++	Paperless accounting, procurement (ACCPAC, an ERP – Enterprise Resource Planning); staff training on funds availability; modules upgraded to improve functionality of the system	30%
# Approval process for research proposals	=	The College Research and Publication Committee meets to approve proposals for internal funding and review and monitor progress	
# Expertise available to the community	=	For community service, consultancies, professional service	
# Administrative autonomy	=	Own governing council	
# Access to ICT	+	Wifi installed in 2013 to improve Internet access especially by students; project to improve bandwidth by connecting to the fibre optic system on-going; but the Wifi is still very slow	5%
# Income generation e.g. BCA Consult and BCA Farming Centre		Only BCA Consult is functional but the income is minimal. There plans to lease part of the farm to investors for dairy production	
# Capacity to offer Advisory Services	=	Initially BCA in the Ministry of Agriculture not meant to be for research; AAS not officially in the College Act; Question and Answer service to farmers in the Library funded by CTA, now not very functional due to lack of funding	
# BCA includes the Centre for In-Service & Continuing Education (CICE)	=	For training of farmers; mobile facilities needed, ambulatory service to increase the reach	
# Strategic plan for 2009-2016 in place, with clear performance indicators	=	PMS introduced in 2011; more support from staff on the PMS	
#Capacity for external resource mobilization (new)		Due to less budgetary support from the government, the staff members have increasingly looked outward and secured external support for research and training – at individual level; but no in-house coordinating agency	Note – Links to SCARDA: Staff members were trained on proposal writing and resource mobilization and have since leveraged on this to secure internal and external funding

	Change --, -, =, +, ++	Explain in a few words why the change has taken place or not	If possible, back up the change quantitatively (i.e. % change)
			There were other courses apart from SCARDA on proposal writing – by CICE
New postgraduate programs (new)		E.g. PhD programs in Animal Science and a proposal for PhD in crop science is in the process of being approved by UB	
<i>Weaknesses</i>			
Insufficient innovative teaching methods e.g. e-learning (rephrased)	=		
# Insufficient linkages between teaching and research	=		
# Limited practical exposure for students	=	For animal science need for travel for practical sessions in farmer fields; logistical challenges; industrial attachments only for six weeks – should perhaps go for more weeks	
# Poor research management	=	No dedicated research liaison office; need e.g. for Dean for Research; challenges in accounting for locally funded research	
# Low capacity in cutting-edge technologies e.g. biotechnology (rephrased)	=	However, more staff in biotech recruited; a new tissue culture lab built	
# Poor information management and packaging for end-users (rephrased)	=	A course conducted for Extension Department under SCARDA towards end of 2010; packaging of info for end users is one of the objectives in the PMS; a research – extension liaison office needed	
<del># Technical support for research (removed)</del>			
# Student: staff ratios too high in some departments	=	E.g. in Basic Sciences; but not too bad elsewhere (recommended is 1:20)	
# Poor balance between teaching and research for individual staff	=	Teaching load too demanding to leave no time for engagement in research - what is the ideal workload for an academic staff?	
# Poor monitoring of research and impact of outputs	=	Due to lack of M&E; need for the College to have specific targeted journals for publications	
# Poor linkages of BCA research outputs to policy and national priorities (rephrased)	=	Challenges on alignment with ministries (Edu and Agric); revised national policy on research, science and technology – need for policy/institutional innovations to match national priorities to BCA actions	
# Poor linkages to extension and wider stakeholders	=	There was an AIS workshop conducted under SCARDA that should have stimulated better engagement with stakeholders. However, AIS needs change from the top – the top cream did not attend the SCARDA courses; see Dr. Tsopito's report on SCAIN. Need for management to be enlightened on AIS	
# Poor implementation of performance review processes (they	+	Before the PMS, there was some mention of performance measurement in the former strategy (2004 – 2009). Actual PMS	10%

	Change --, -, =, +, ++	Explain in a few words why the change has taken place or not	If possible, back up the change quantitatively (i.e. % change)
exist on paper, but they are implemented properly)		implementation started in 2011	
# Poor marketing of BCA	=	No budget to market the College; PR office exists since 5 years ago	
# Poor attitude morale of staff and students (rephrased)	=	Staff: uncertainty in BCA's future; students: no jobs upon graduation – backlog for 3 consecutive years; linkages between BCA and Local Enterprise Authority (LEA) to empower graduates in agripreneurship; gained skills to promote self-employment	
<i>Opportunities</i>			
# Awareness of the need to be more customer-driven (deleted)			
# Demand for postgraduate and undergraduate programmes	+	It is Government policy to train existing staff; primary instructors to have degrees and college instructors to have post-graduate degrees; this creates the demand for postgraduate training; due to lack of jobs, some people prefer to continue with education; government is also offering PG scholarships	5%
# Become a university (rephrased)	=	Due to demand for university training	
# Availability of external funds and international expertise (rephrased)	=	BCA can draw upon to boost teaching and research capacity	
<del># Income generation e.g. BCA Consult and BCA Farming Centre (moved to strengths)</del>			
# International collaboration on educational programmes	=	Not capitalized enough; student staff exchange with Finland and Pavia University, Italy,	
<del># Launching of new study programmes on rural development and post harvest processing (see above on demand for programmes)</del>			
Favourable political environment towards agriculture (new)		The current government is encouraging investment in agriculture to diversify the economy and poverty alleviation	
Renewed interest in agriculture on the global scene (new)		Availability of external funds for investment in agriculture	
Continental policy environment on agriculture by NEPAD (new)		The CAADP provides the framework to be tapped for policy and programming in local agricultural development	
<i>Threats</i>			
# Lack of a functional NAIS (rephrased)	=	NAIS – National Agricultural Innovation System	
# Regional and local competition [esp. RSA]	=	For students and staff; contributes staff attrition; private TAEs mushrooming in Botswana	
# HIV/AIDS	-	Relatively reduced staff absenteeism in terms of sick leaves and attrition	
# Encroachment of Gaborone	=		

	Change --,-,=,+,,++	Explain in a few words why the change has taken place or not	If possible, back up the change quantitatively (i.e. % change)
# Unreliable suppliers	=	Non-delivery and legal cases; economic loss to BCA	
# Brain drain	=		
# Negative perception of agriculture	+	Government's positive efforts to promote agriculture even in local media, success stories on agriculture, available funds from govt to support proposals, mentorship of young people by LEA; mentors are experienced farmers and educators; LEA has a database of such mentors. Govt came up with incentives under ISPAAD (Integrated Support Program for Arable Agriculture Development) – free seeds and fertilizers, tractor ploughing for 5 hectares	20%
# Declining government funding	-	Funds to BCA have continued to dwindle; contributed to low morale	10%
# Limited number of government bursaries for MSc and PhD students constrains the growth of the post-graduate programmes	=	Some students not completing due to financial constraints to do research	
# Prospects on merger of BCA with the Botswana International University of Science and Technology (BIUST) by creating a lot of insecurity about the future of BCA	=	Possibility of marginalizing agricultural training (Now no longer a threat since Cabinet has approved the transformation of BCA into a university)	

(Key: -- - decreased much; - - decreased slightly; = - remained the same; + - increased slightly; ++ - increased much)

Appendix 4: Ranking of factors in 'Strengths' quadrant

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	Totals
1: Qualified, competent staff		1	1	1	1	1	1	1	1	1	1	1	1	1	1(14)
2: Ample classroom space			2	2	2	2	2	8	2	2	2	2	13	2	2(10); 8(1); 13(1)
3: Own journal				4	5	6	3	8	9	10	3	12	13	14	4(1); 5(1); 6(1); 3(2); 8(1); 9(1); 10(1); 12(1); 13(1); 14(1)
4: Efficient accounting system					4	6	4	8	9	4	4	12	13	4	4(5); 6(1); 8(1); 9(1); 12(1); 13(1)
5: Efficient research approval process						6	5	8	5	5	5	12	5	5	5(6); 6(1); 8(1); 12(1)
6: Expertise availability							6	8	6	6	6	12	6	6	6(6); 8(1); 12(1)
7: Admin autonomy								8	9	10	11	12	13	7	7(1); 8(1); 9(1); 10(1); 11(1); 12(1); 13(1)
8: Access to ICT									8	8	8	12	13	8	8(4); 12(1); 13(1)
9: Income generation										9	9	12	13	9	9(3); 12(1); 13(1)
10: AAS capacity											10	12	13	10	10(2); 12(1);

																13(1)
11: CICE												12	13	11		11(1); 12(1); 13(1)
12: Strategic plan in place													13	12		12(1); 13(1)
13: Resource mobilization capacity														13		13(1)
14: New PG programs																

## Appendix 5: Suggested strategic directions based on SWOT factors

	<p><b>Strengths</b></p> <ul style="list-style-type: none"> <li># Well qualified, competent staff</li> <li># Ample classroom space at present student levels</li> <li># Publication through own journal [BOJAAS]</li> <li># Efficient accounting set-up</li> <li># Approval process for research proposals</li> <li># Expertise available to the community</li> <li># Administrative autonomy</li> <li># Access to ICT</li> <li># Income generation e.g. BCA Consult and BCA Farming Centre</li> <li># Capacity to offer Advisory Services</li> <li># BCA includes the Centre for In-Service &amp; Continuing Education (CICE)</li> <li># Strategic plan for 2009-2016 in place, with clear performance indicators</li> <li># Capacity for external resource mobilization</li> <li># New postgraduate programs</li> </ul>	<p><b>Weaknesses</b></p> <ul style="list-style-type: none"> <li># Insufficient innovative teaching methods e.g. e-learning</li> <li># Insufficient linkages between teaching and research</li> <li># Limited practical exposure for students</li> <li># Poor research management</li> <li># Low capacity in cutting-edge technologies e.g. biotechnology</li> <li># Poor information management and packaging for end-users</li> <li># Student: staff ratios too high in some departments</li> <li># Poor balance between teaching and research for individual staff</li> <li># Poor monitoring of research and impact of outputs</li> <li># Poor linkages of BCA research outputs to policy and national priorities (rephrased)</li> <li># Poor linkages to extension and wider stakeholders</li> <li># Poor implementation of performance review processes (they exist on paper, but they are implemented properly)</li> <li># Poor marketing of BCA</li> <li># Poor morale of staff and students</li> </ul>
<p><b>Opportunities</b></p> <ul style="list-style-type: none"> <li># Demand for postgraduate and undergraduate programmes</li> <li># Become a university</li> <li># Availability of external funds and international expertise</li> <li># International collaboration on educational programmes</li> <li># Favourable political environment towards agriculture</li> <li># Renewed interest in agriculture on the global scene</li> <li># Continental policy environment on agriculture by NEPAD</li> </ul>	<p><b>Opportunity-Strengths Strategies (Capture opportunities using strengths)</b></p> <ol style="list-style-type: none"> <li>1. Design new undergraduate and postgraduate programs</li> <li>2. Improve program access and learning through decentralization and ICT-based pedagogy</li> <li>3. Accelerate transformation into a fully-fledged university</li> <li>4. Design and engage in FPR approaches</li> <li>5. Establish a research coordination facility to booster external resource mobilization</li> <li>6. Spearhead CAADP country processes</li> </ol>	<p><b>Opportunity-Weakness (OW) Strategies (Overcome weaknesses by taking advantage of opportunities)</b></p> <ol style="list-style-type: none"> <li>1. Develop the structures and systems for ICT-based learning methods</li> <li>2. Establish an M&amp;E Unit</li> <li>3. Develop procedures for prioritization to ensure demand-led research</li> </ol>
<p><b>Threats</b></p> <ul style="list-style-type: none"> <li># Lack of a functional national agricultural innovation system (NAIS)</li> <li># Regional and local competition [esp. RSA]</li> <li># HIV/AIDS</li> <li># Encroachment of Gaborone</li> <li># Unreliable suppliers</li> </ul>	<p><b>Threats-Strengths Strategies (Use strengths to defend against threats)</b></p> <ol style="list-style-type: none"> <li>1. Develop a resource mobilization strategy</li> <li>2. Engage in multi-stakeholder research undertakings</li> <li>3. Improve on the quality and delivery of programs e.g. through performance appraisals and quality</li> </ol>	<p><b>Threat-Weakness (TW) Strategies (Minimize weaknesses and avoid threats)</b></p> <ol style="list-style-type: none"> <li>1. Develop and implement an information and communication strategy</li> <li>2. Develop twinning strategies with external institutions</li> <li>3. Develop capacity in cutting-edge technologies</li> </ol>

<ul style="list-style-type: none"><li># Brain drain</li><li># Negative perception of agriculture</li><li># Declining government funding</li><li># Limited number of government bursaries for MSc and PhD students constraints the growth of the post-graduate programmes</li><li># Prospects of merger of BCA with a new technical university up North in the country by creating a lot of insecurity about the future of BCA</li></ul>	assurance	
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#### Appendix 6: List of Persons Met

BCA, Botswana (22 – 23 August 2013)				
1	Dr. B. Sebolai	Head of Basic Sciences Department and former FI Contact Person	+2673650280	<a href="mailto:bsebolai@bca.bw">bsebolai@bca.bw</a>
2	Prof. S. J. Nsoso	Hean of Animal Science and Production Department	+2673650109	<a href="mailto:sjnsoso@bca.bw">sjnsoso@bca.bw</a>
3	Dr C. Tsopito	Senior Lecturer, Animal Science and Production Department	+267365224	<a href="mailto:ctsopito@bca.bw">ctsopito@bca.bw</a>
4	Ms O. Ndoma	Acting Finance Manager	+2673680117	<a href="mailto:ondoma@bca.bw">ondoma@bca.bw</a>
5	Prof E. B. Khonga	Dean, Faculty of Agriculture	+2673650103	<a href="mailto:ebkhonga@bca.bw">ebkhonga@bca.bw</a> or <a href="mailto:ebkhonga@gmail.com">ebkhonga@gmail.com</a>