

# **MONITORING OF SCARDA-INDUCED INSTITUTIONAL CHANGES AT THE NATIONAL UNIVERSITY OF LESOTHO, LESOTHO**

---

By

Ojjo<sup>1</sup>, N. K. O, Annor-Frempong<sup>1</sup>, I., Mokhothu<sup>2</sup>, N. and Odenya<sup>2</sup>, W.O.



---

<sup>1</sup> Forum for Agricultural Research in Africa (FARA), Accra, Ghana

<sup>2</sup> National University of Lesotho, Roma, Lesotho

## Table of Contents

Abbreviations and Acronyms .....	3
Summary .....	4
Introduction .....	5
Approach to the Institutional Review .....	5
Background Information and Sector Performance in Lesotho .....	6
General Changes in Institutional Factors .....	7
Mandate.....	7
Strategy and Plan .....	8
Organizational Re-structuring.....	8
Staffing .....	9
Budget and Funding .....	10
Infrastructure .....	10
Internal Management Processes .....	11
External Linkages and Partnerships .....	11
Changes in SWOT Factors .....	12
Possible SCARDA Contributions to SWOT Changes .....	17
Updated SWOT Table.....	20
Conclusions .....	21
References .....	22

## Abbreviations and Acronyms

AgGDP	Agricultural Gross Domestic Product
AIS	Agricultural Innovation Systems
ARM	Agricultural Research Management (workshops under SCARDA)
CAADP	Comprehensive Africa Agriculture Development Program
DAR	Department of Agricultural Research
FANRPAN	Food Agriculture and Natural Resources Policy Analysis Network
FAO	Food and Agriculture Organization
FARA	Forum for Agricultural Research in Africa
FoA	Faculty of Agriculture
FPR	Farmer Participatory Research
GDP	Gross Domestic Product
HODs	Heads of Departments
ICT	Information and Communication Technology
IPR	Intellectual Property Rights
LAC	Lesotho Agricultural College
LECARD	Lesotho Centre for Agricultural Research for Development
MoAFS	Ministry of Agriculture and Food Security
NARS	National Agricultural Research System
NMDP	National Manpower Development Program
NSDP	National Strategic Development Plan
NUL	National University of Lesotho
RUFORUM	Regional Forum for Capacity Building in Agriculture
SCARDA	Strengthening Capacity for Agricultural Research & Development in Africa
SECCAP	Strengthening Evidence-based Climate Change Adaptation Policies
SWOT	Strengths, Weaknesses, Opportunities and Threats

## Summary

This is the second post-implementation review conducted by FARA to determine institutional changes at the Faculty of Agriculture, National University of Lesotho (FoA-NUL) since completion of SCARDA activities in 2010.

As in the previous survey conducted in 2011, the Institute presents an overall positive change in institutional disposition based on the SWOT methodology. Of the 44 SWOT factors identified in 2011, 23 had changed positively and 16 stayed the same. Positive changes in 11 SWOT factors could be directly linked to participation of FoA-NUL in the SCARDA program. Some key institutional changes in this regard include: formation and launch of the Faculty journal, increased predisposition to innovative and multidisciplinary research by FoA-NUL staff members, increased capacity for resource mobilization through proposal writing, change-readiness in FoA-NUL staff, forging of key external links with employers of graduates, other sub-regional players and national stakeholders, and improvement of research culture at FoA-NUL.

Other major changes include a marked increase in academic staff capacity (with good gender balance) by about 32%, overall increase in student pass rate from around 65% to over 95%, and establishing feedback loops with workplaces that helped refocus curricula to meet the required competencies by the job market. Further, three new strength attributes were added, six weaknesses were eliminated and new opportunities were identified.

## **Introduction**

The Kingdom of Lesotho is a landlocked mountainous enclave within South Africa. All the land in Lesotho is over 1,500 m above sea level and presents with four distinct agro-ecological zones, namely: the lowlands, foothills, mountains, and the Orange-River-Valley. The lowlands occupy about 15% of the country and are at 1,500 - 1,800 m above sea level. The Orange-River-Valley is an extension of the lowlands into the eastern mountains along the Senqu (Orange) River. The foothills comprise 10 – 15% of the land area at 1,800 - 2,200 m above sea level, while the mountains cover over two-thirds of the country and are at an elevation of 2,200-3,000 m.

Due to the nature of the terrain and landscape, the farms in Lesotho are restricted to average sizes of three to four hectares. All land in Lesotho is the property of the nation; allocation is on patrilineal basis and at the pleasure of the king. Agricultural challenges in Lesotho include: 1) limited access to finance, agricultural inputs, technology, quality extension services, and market information; 2) poor market organization; 3) limited capacity to deal with agricultural risks; 4) limited capacity for agricultural research and development with few institutions engaged in scientific research; and 5) and inadequate government policies on smallholder farming (Government of Lesotho, 2012).

The Faculty of Agriculture of the National University of Lesotho (FoA-NUL) was selected by SADC-FANR as the Focal Institute for SCARDA implementation in Lesotho, being a well-organized and respected teaching and research organization around which the capacities of other NARS institutions under the Ministry of Agriculture & Food Security (MAFS) could be built. The FoA-NUL has good facilities and linkages, and strengthening its capacity will help strengthen the capacities of all agricultural R&D institutions in Lesotho, including civil and private sector organizations.

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 FoA-NUL. In the end, this is expected to institutionalize self-monitoring of change within the Faculty.

## **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 with the incumbent and a former Dean of the FoA-NUL. Where necessary, further information was obtained from official online publications posted on NUL and other Government of Lesotho websites.

In determining the changes in SWOT factors, the panellists were asked to respond to the following questions (with reference to the SWOT tables compiled in 2011):

- 1) Have the listed SWOT issues have improved, stayed the same or deteriorated and why?
- 2) Which listed SWOT issues are no longer relevant or misplaced in a quadrant?
- 3) Are there new issues that should be added to any of the quadrants of the SWOT table?

The panellists were also required to rank the SWOT factors in each quadrant but, due to time constraints, it was not possible to accomplish this task in the discussion sessions.

## **Background Information and Sector Performance in Lesotho**

Lesotho is a small enclave within South Africa with a predominantly rugged mountainous landscape leaving only 10% of the land area amenable to crop cultivation. The proportion of arable land is about 11% of total land area and agriculture contributes only 8.4% of GDP in a country whose economy is largely service-based. Currently, the livestock subsector contributes about 4.1% of AgGDP, while the crops subsector contributes 2.3%.

Agricultural sector performance in Lesotho has steadily declined in the last 30 years and currently contributes only 8.4% of GDP. As allude to above, the key constraints inhibiting agricultural growth include limited access to factors of production, poorly developed markets, and limited capacity to deal with risks. In spite of its dwindling contribution to the national GDP (chiefly due to increasing contribution by the mining sector in recent years), agriculture is still one of the four key sectors identified to drive future growth. According to the NSDP (2012 – 2017), targeted productivity increases in crop and livestock sectors will contribute marginally to overall GDP growth but will significantly increase employment by 1% by 2017. Land tenure reforms embedded in the Land Act 2010 are also expected to contribute to envisaged total factor productivity in the agricultural sector.

The Government of Lesotho has elaborated the National Strategic Development Plan (NSDP, 2012 – 2017) as a successive instrument for five-year implementation of Vision 2030. The economic diversification drivers specified in the NSDP (2012 – 2017) are pegged to commercial opportunities in

the agricultural, manufacturing, mining and tourism sectors. The Government has resolved to pursue three strategic objectives to realise sustainable agricultural growth that will contribute towards food security and poverty reduction. These are: 1) promote sustainable commercialisation and diversification in agriculture, 2) strengthen capacity of farmers and institutions, and 3) reduce vulnerability and manage risks. Under strengthening the capacity of farmers and institutions, the Strategy outlines the following specific actions:

- Enhance agricultural institutions and capacity of farmers through effective training and transformation of extension services
- Improve capacity and relevance of agricultural research and training (especially, strengthening linkages between Lesotho Agricultural College, FoA-NUL and other national knowledge nodes)
- Enhance capacity and systems for policy analysis and planning

The Government of Lesotho recently signed the CAADP Compact as a political commitment to enrich sector programming based on the CAADP Country process. Further, policy instruments on biotechnology and biosafety, ICT, and land are in place; but the country has not enacted other innovation-enabling policies on science and technology, seeds, IPR and extension.

## **General Changes in Institutional Factors**

### **Mandate**

Since 2012, NUL has been undergoing restructuring. The Government of Lesotho promulgated a revised Act on higher education in 2010 to supersede the previous one of 2004. Under the new Act, higher education programs in the country are to be aligned to national development priorities. Specifically, NUL seeks to be transformed into a world-class institution capable of producing the requisite human capital to be deployed in the key sectors of agriculture, mining, tourism, and manufacturing identified as the main drivers of Lesotho economy in Vision 2020 and NSDP (2012 – 2017).

The traditional mandates of teaching, research and advisory still remain, but FoA-NUL is putting more emphasis on engagement with policy makers (e.g. permanent secretaries of line ministries) especially at the Dean's level. This action line emanates from SCARDA since the formation of LECARD that promoted greater engagement with stakeholders based on agricultural innovation systems principles. The Ministry of Agriculture and Food Security (MoAFS) also consults FoA-NUL on policy issues and for advice

on various aspects. The Faculty is a formidable think-tank for MoAFS and has a representative in the Country Team steering the CAADP implementation process in Lesotho that culminated in signing the CAADP Compact on 3<sup>rd</sup> September 2013.

## **Strategy and Plan**

The University does not have an updated strategic plan, the previous one having run from 2007 – 2012 with the mission of “to be a leading African University responsive to national socio-economic needs, committed to high quality teaching, life-long learning, research and community service, respected nationally and internationally.” It was not very clear what plans obtain in revising, reviewing, or extending the Strategic Plan. However, in keeping with the Higher Education Act (2010), the new NUL strategic plan will necessarily align with those of the Ministry of Education and other sector ministries, namely: MoAFS, Forestry and Land Reclamation, and Ministry of Communications, Science & Technology. In this regard, the Ministry of Higher Education has a new Strategic Plan (2013 – 2017). On the other hand, MoAFS is currently reviewing the sector priorities and FoA-NUL should ensure that the University strategic plan embraces agricultural sector priorities to be identified in the National Food Security and Investment Plan of the CAADP. The concluding phases of SCARDA in 2010 saw the formation of LECARD chiefly to coordinate actions across line ministries and FoA-NUL would definitely leverage on these experiences to enrich the inchoate strategic planning process.

## **Organizational Re-structuring**

There is an on-going review of programs and restructuring of departments and faculties within the university. This entails mergers and changes in roles and administrative set-ups. For example, two Deputy Vice Chancellors (DVCs) have been proposed - Academic Affairs; and Administration, Development and Finance. Previously, the University had only one Pro-Vice Chancellor. A directorate for linkages with end-users on research and innovation outputs is also in the offing. At the FoA-NUL level, it is easy for staff members to embrace such restructuring as many of them attended the SCARDA workshops on change management. Indeed, the FoA-NUL has proactively indicated the direction of desired changes leveraging on the mind-set change (or readiness to embrace change) imparted by SCARDA.

As part of the restructuring process, FoA-NUL has reviewed its programs to ensure relevance with job market demands. In so doing, the Faculty relied heavily on the tracer studies conducted under SCARDA. A number of new technology-oriented courses are envisaged due to a shift in focus towards agricultural

science and technology. Other courses already (or to be) introduced in response to market demand includes Consumer Science, Animal Health and Production, Agronomy, and Entrepreneurship and Agribusiness.

## Staffing

The Faculty has a total declared establishment for academic, technical and administrative support staff of 39. About 83% of academic staff is in place, while the engaged technicians supersede the declared positions by 33%. There are a near equivalent number of male and female academic staff members. In the technician category, female staff outweigh their male counterparts. Thus, staffing in the Faculty reflects a favourable gender equality situation. However, the balance of technicians to researchers (academic faculty) is low at only 0.17% (Table 1). Due to restriction in student intake in the last few years, NUL currently has low student/lecturer ratio. This has had favourable impacts on student performance.

Table 1: Staffing in FoA-NUL

Staff Cadre	Establishment	Filled	% Filled	Males	Females	Total	% Females	T/R ratio
Academic	35	29	<b>83</b>	16	13	29	<b>45</b>	<b>0.17</b>
Technicians	3	5	<b>133</b>	2	3	5	<b>60</b>	
Support staff	1	1	<b>100</b>	-	1	1		
<b>Total</b>	<b>39</b>	<b>35</b>	<b>89.74</b>	18	17	35		

As shown in Figure 1, the age profile for academic staff members depicts a good succession balance with about 50% below 50 years and almost an equivalent number above 50 years. The predominant share of young researchers below 40 years in virtually all the four main departments is an especial strength for the Faculty.

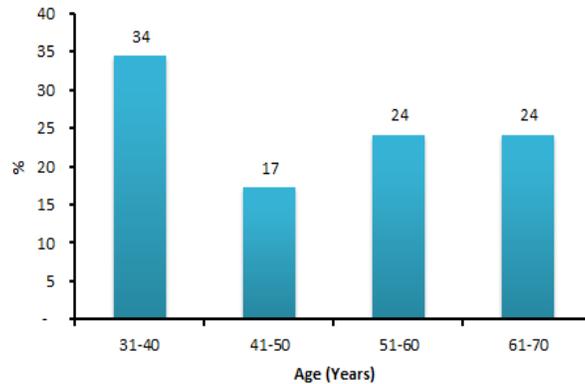


Figure 1: Age profile for FoA-NUL academic staff

## Budget and Funding

Funding for FoA-NUL mainly comes from the Government, through the Ministry of Education. The Government gives lump sum capitation, which is then internally allocated to various departments by the University. There used to be an allocation for research, but this was withdrawn in the on-going restructuring process due to unfavourable macro-economic factors. Some degree of resource mobilization accrues from individual staff projects and consultancies. This is mainly from requests for technical assistance from the private sector. It was not clear to what extent FoA-NUL pursues a proactive policy on resource mobilization (e.g. through structured proposal writing bids by academic staff); but NUL Consultancy Services exists as an instrument to coordinate staff consultancies.

The University also generates revenue from students' tuition and accommodation fees. To this end, a Marketing & Communications Office was established to market university academic programs and is the official office that despatches official information from the university, organizes field days to market the university, organizes graduation ceremonies, publishes a newsletter for the university and publishes an official internal information bulletin for the university staff.

## Infrastructure

Currently, ICT-based pedagogic approaches are not well developed in the FoA-NUL. However, the recent acquisition of a conference room with modern audio-visual and video conferencing facilities is a laudable physical infrastructural development in this regard. New computers were also acquired for academic staff in 2012. Key changes have occurred in regard to institutional information exchange and

access. For one, a large computer laboratory was built for students in 2010. Since then, there have been a number of upgrades in the laboratory for faster Internet access. More Wi-Fi outlets have also been strategically located within the campus.

### **Internal Management Processes**

On research planning, priority setting and budgeting in the Faculty, individuals voluntarily work together to set up research themes. There are plans to create a research office to coordinate research by university faculty members. Every year, the dean compiles a faculty report based on departmental reports by heads of departments and submits to the Vice Chancellor. The HODs consult individual staff on their research areas and use the information to compile departmental reports. Internal reforms focused on devolution of governance have vested the Deans with more power e.g. to approve staff leaves.

### **External Linkages and Partnerships**

The FoA-NUL undertook the following linkages and partnerships over the last two years:

- a. Signed an MoU with FANRPAN on scientific research cooperation, policy analysis and research with the Dean as the contact person. Collaboration in this regard started in 2011 and two students have been sponsored for MSc studies at FANRPAN. Due to capacity limitation in the Department of Agricultural Economics, FoA-NUL, the program could not be mounted in the Faculty. Other aspects of collaboration with FANRPAN include joint research projects e.g. Strengthening Evidence-based Climate Change Adaptation Policies (SECCAP). In due course, SECCAP will be transformed into a project on climate-smart agriculture to be funded by IDRC, Canada, through FANRPAN.
- b. A synergistic collaboration on joint research with MoAFS is currently under discussion and will soon be ratified by an MoU. The ministry has more land for research while NUL has the human capacity for research.
- c. Other collaborative ventures include RUFORUM (since 7 years ago), FAO (on conservation farming) and University of Tennessee (on conservation farming).

Overall, as the sole national university, NUL and its associated faculties is highly regarded by the citizenry and external peers.

## Changes in SWOT Factors

The survey report of 2011 (Roseboom, 2011) identified 44 SWOT factors for FoA-NUL. In the intervening two years, 23 SWOT factors had changed positively and 16 stayed the same (Table 2). The major changes included a marked increase in academic staff capacity (with good gender balance) by about 32% due to staff members returning from study leave and recruitment of new staff. Further, the University was previously plagued by low student pass rates, but this has dramatically changed for the better due to lower student/staff ratio, improved staff quality, more tutoring at the individual level by the instructors, and increased Internet usage by students to gain further access to learning materials. Consequently, the overall student pass rate for the Faculty has increased from around 65% to over 95%. The FoA-NUL has also registered tremendous improvement in establishing feedback loops with employers of their graduates. This has helped refocus curricula to meet the required competencies by the job market.

Still as pointers to positive institutional change, three new strength attributes have been identified in the current review for FoA-NUL. These included “increased predisposition to innovative and multidisciplinary research by staff members”, “devolved governance to the Dean’s level hence less bureaucracy” and “expansion into post-graduate training”. Further, six weaknesses (in the areas of poor linkages with stakeholders, lack of proposal writing skills, low student pass rates, and high student-staff ratios) and three threats factors (including low priority of agriculture in national strategic outlook) were eliminated. New opportunities were also identified in the areas of “favourable political climate”, “current Lesotho Government strategic orientation towards agricultural value chain development”, and “Lesotho Government emphasis on agriculture-led economic growth”. Heavy reliance on government subvention for research was identified as an external threat, but could also reflect the internal weakness of low resource mobilization capacity.

Climate change was perceived as both an opportunity and a threat. A number of other SWOT factors were rephrased for clarity, some interchanged (i.e. one opportunity factor was changed into strength) and others reassigned to more rightful quadrants.

Table 2: Changes in SWOT factors for FoA-NUL over the last two years

	SWOT factors <sup>3</sup>	Change <sup>4</sup> --,-,=,+,++	Nature of change	Extent of change
	<i>Strengths</i>			
1	Skilled, diverse and energetic staff	++	Younger people have joined the faculty; new disciplines started e.g. biotech (2 lecturers, both women, secured for this); new Prof of Microbiology; Prof of Agric Extension externally recruited; others have come back with PhDs (5 new PhDs, 3 are women); over the last 2 years	A total of 28 academic, making 9/28*100 (about 32% change)
2	Balanced age and gender composition of faculty staff	+	From above, the younger ones have balanced the age brackets	28 positions filled over the last 2 years, 13 are women = 46%; previously the gender ratio as at 2011 was 40% women
3	Staff retention fairly good (and definitely better than at DAR and LAC)	+	2 have left for greener pastures, while 4 have joined	7.1% increase
4	Basic infrastructure in place	=	No major	
5	Diverse, good quality undergraduate and graduate programmes	+	The programs have been reviewed and new ones will soon be launched	
6	Internationally recognised curriculum	+	Circulated programs to competing universities even in South Africa; the comments were incorporated in the curricula; cream of the country coming to do science due to market forces i.e. ease of employment	
7	Faculty Journal	+		
8	Increased predisposition to innovative and multidisciplinary research by staff members			
9	Devolved governance to the deans level; less bureaucracy		Ability to act opportunistically; allows flexibility in response to threats, challenges capture opportunities	
10	Expansion into post-graduate training (to move top Strength)		To strengthen the research profile of the Faculty	
	<i>Weaknesses</i>			
11	<del>Low pass rates</del> (moved to strength)	++	The lower student/staff ratio, improved staff quality, more tutoring at the individual level by the instructors, due to increased Internet access students can gain further learning materials; highest pass rate in the entire university	Currently 95% pass rate; previously the pass rate was 65%
12	<del>High student staff ratio</del> → high teaching workload (no longer a weakness)	+	New employment and returning faculty have contributed to improve the student/staff ration	Currently, 25 students/instructor; previously the ratio was twice this figure; an increase of 50%
13	Low research output and weak academic publication record	+	The prevailing research culture was not strong and did not encourage staff to	

<sup>3</sup> New SWOT factors, descriptions or explanations are indicated in red

<sup>4</sup> Key: -- - decreased much; - - decreased slightly; = - remained the same; + - increased slightly; ++ - increased much.

			publish. Currently, there are promotions from lecturer to senior lecturer, more publications due to low student/staff ratio. Over the last 2 years, RUFORUM funded 2 students in soil science and one was support by the tissue culture project funded by Dept of Sci and Tech in SA and Lesotho; another student in animal science; helped supervising staff to publish	
14	Limited operational budgets for research	=		
15	Inadequate financial support towards laboratory consumables	=		
16	Research funding largely project-based, no funding for more long-term strategic research	=		
17	<del>Lack of skills to mobilize resources and to write good research proposals</del> -(ceased to be a weakness after SCARDA)	+	Improved because many staff attended SCARDA-sponsored proposal writing workshops	
18	Inadequate research infrastructure (insufficient laboratory space, outdated equipment, insufficient land at the University for on-station research trials, limited ICT facilities)	+	Computer lab, Wi-Fi access, staff have been provided with computers, video conferencing facilities available; fewer number of students currently, hence improvement in space. Equipment is still a problem though	20%
19	Inadequate laboratory and ICT support staff -- remuneration not competitive enough	=		
20	Bureaucracy: red tape / slow processing	+	Due to partial devolution, less bureaucracy	15%
21	No research policy at University level	=		
22	Poor dissemination of research outputs (information, materials and services) to extension, farmers, NGOs, policy makers and other practitioners. Lack of an outreach strategy	=		
23	Little appreciation by administration for field work, extension and community service activities and lack of funding for such activities	=		
24	Limited leadership and change management capacity	+	SCARDA Training emphasized on change management and research management (see above on proactive stance by FoA-NUL on new restructuring of NUL)	40%
25	<del>Weak internal links within FA-NUL constraint on multidisciplinary research approach</del> (has ceased to be a weakness)		Last year, some members of the Faculty conducted research with people from Biology Department on effect of climate change on particular farming systems	
26	Lack of incentives/motivation for innovation systems research	+	Implementation of the AIS from workshops offered by SCARDA; a student working with indigenous herbs on control of helminthes in sheep; the results were	

			<p>very good and almost comparable with commercial; based on indigenous farmer knowledge</p> <p>Mushroom production with stakeholders in government and farmers; MoAFS provided materials and the technology was being shared between NUL-FA and MoAFS, the students gained practical exposure</p>	
27	<del>Poor linkages with other NARS partners (DAR, LAC, extension, NGOs, farmers, private sector, government) (ceased to be a weakness after SCARDA)</del>		SCARDA encouraged AIS and strengthening of the NARS and led to the formation of the LECARD; not enough funding to implement LECARD – modicum funds have been secured by the Dean, NUL-FA from internal sources to advance the LECARD	
28	Weak international linkages and exposure	+	Linkages with FANRPAN	
29	<del>Lack of linkage between FA and employers of graduates, leading to inadequate feedback from employers into course curricula and delivery methods (ceased to be true)</del>	++	SCARDA tracer study enabled direct engagement with employers and feedback	
30	<del>There is a lack of internal M&amp;E systems and external evaluation of academic programmes and outputs leading to reflection, learning and change (rephrase)</del>	=		
31	Inability to attract high calibre staff	=	Still holds due to poor remuneration; <b>Poor remuneration levels make it difficult to attract and retain qualified staff</b>	
<i>Opportunities</i>				
32	Prospects for staff development	=	The National Manpower Development Program (NMDP), within the Ministry of Finance, since 1970s; for university staff development there is a specific desk that deals with the NUL; even bilateral scholarship offers are administered through NMDP; NUL staff stand a good chance of scholarships	
33	Research potential	=	NUL is a fulcrum for agricultural research because of the quality of the manpower	
34	Income generation	=	Derived from the NUL strategic plan; promoted at the university level; proposed to set up a poultry abattoir in the FoA-NUL in collaboration with private partners; to support research and teaching; to be built within the university	
35	Better linkages with international partners	+	A research office to be set to facilitate such linkages and fund-raising; the office to be in place before the end of the year	10%
36	Stronger research culture	+	Launch of a Journal of Agricultural Sciences (JAS) and the establishment of an Agricultural Sciences Society can help to create a stronger 'research culture' in Lesotho. The JAS was launched in 2010;	

			ASS still in the process	
37	Creation of a research coordination mechanism at FoA-NUL or NARS level	+	The office to be established before end of 2013	
38	Support farmers to form associations	=	One of the big issues identified by the FoA-NUL; to be addressed in the CAADP country process	
39	<del>Expansion into post-graduate training (Moved to Strength)</del>		To strengthen the research profile of the Faculty	
40	<del>Ample funding for MSc students</del> (Rephrased to: "Availability of funding for tertiary education – Undergraduate and postgraduate e.g. through the NMDP")	+	Plans to bring back teaching assistants in 2013; the NSDP (2012 – 2017) identifies capacity building in agriculture as a key priority	12%
41	Favourable political climate			
42	Current Lesotho Government strategic orientation towards agricultural value chain development		New skills e.g. in post-harvest systems would be required and FoA-NUL is developing programs to meet these capacity needs	
43	Lesotho Government emphasis on agriculture-led economic growth		This is also the goal of CAADP	
44	Climate change		As a drive to innovations in climate-smart technologies	
	<i>Threats</i>			
45	Brain drain (not exactly a threat)		Over 90% of staff in place for over a decade	
46	<del>Poor remuneration levels make it difficult to attract and retain qualified staff (moved to weaknesses)</del>			
47	<del>Inadequate coordination of research between NARS actors leading to duplication/inefficiencies and sub-optimal use of resources</del> Rephrased to: "Sub-optimal use of resources due to uncoordinated research at national level"	+	Director of Research (of MoAFS) planning of formal working relationship from 2013; LECARD also was formed in 2011 to do this	10%
48	<del>Uptake of technologies constrained by adverse government policies (i.e. subsidies)</del> Rephrased to: <b>Government policy on subsidies</b>	=	Government of Lesotho subsidizes cereal production in years with poor yields; subsidies in one sub-sector can stifle innovation in other sub-sectors locally. On the international scene, foreign government subsidies makes African produce uncompetitive in the international markets; this constraints innovation.	
49	<del>Low level of organization of farmers often constraints innovation – absence of an articulated demand for innovation (see above under opportunity)</del>			
50	<del>Agriculture has low priority (no longer a threat)</del>		National policies currently favour agriculture	

51	Faculty is not recognized as a research organization	=	FoA-NUL is regarded as a fulcrum for research at national level, although it's research mandate is not prominent	
52	Heavy reliance on government subvention for research		The Faculty relies heavily on proportional university funding that it gets from the government; govt funding to varsity has been decreasing. Further, decrease will heavily affect research output.	
53	Climate change		Affects long-term research projects	

## Possible SCARDA Contributions to SWOT Changes

Of the 23 SWOT factors that registered positive changes over the last two years, about 11 could be directly linked to participation of FoA-NUL in the SCARDA program as exemplified by the following (Table 3):

- One of the SCARDA ARM workshops inspired the formation and launch of the Faculty journal
- SCARDA-sponsored agricultural innovation systems (AIS) workshops inspired increased predisposition to innovative and multidisciplinary research by FoA-NUL staff members
- SCARDA-sponsored proposal writing workshops helped to eliminate the weakness of lack of skills to mobilize resources and to write good research proposals
- SCARDA-sponsored a series of ARM workshops that emphasized on change management and agricultural research management. This imparted change-readiness to FoA-NUL staff and has helped them to embrace and steer recent organizational restructuring efforts
- Staff skills in partnerships and linkages honed during SCARDA workshops has helped forge key external links with other sub-regional players and national stakeholders. The case of LECARD, triggered by SCARDA, has enabled stakeholders to see the need to work together.
- Tracer studies conducted under SCARDA helped to eliminate the specific weakness of lack of linkage between FoA-NUL and employers of graduates
- SCARDA workshops provided improvement in soft skills for staff members and the ARM workshop on farmer participatory research (FPR) also contributed to improving the research culture at FoA-NUL

Table 3: SCARDA contribution to changes in SWOT factors

SWOT factors	Change --, -, =, +, ++	SCARDA contribution to change ++, +, =	Nature of contribution	SCARDA	Primary contributor to change if not SCARDA
--------------	---------------------------	---	---------------------------	--------	---

	SWOT factors	Change --,=,+,++	SCARDA contribution to change ++, +, =	Nature of contribution	SCARDA Primary contributor to change if not SCARDA
	<i>Strengths</i>				
1	Skilled, diverse and energetic staff	++	None		Trained staff obtained scholarships through NMDP, a Lesotho government agency
2	Balanced age and gender composition of faculty staff	+	None		
3	Staff retention fairly good (and definitely better than at DAR and LAC)	+	None		
4	Diverse, good quality undergraduate and graduate programmes	+	None		
5	Internationally recognised curriculum	+	None		
6	Faculty Journal	+	+	Launch of the journal was sponsored by SCARDA workshop	
7	Increased predisposition to innovative and multidisciplinary research by staff members		+	SCRDA-sponsored AIS workshops inspired this predisposition; also mentoring workshops under SCARDA contributed to this predisposition	
	<i>Weaknesses</i>				
<del>10</del>	<del>Low pass rates (moved to strength)</del>	<del>++</del>			
11	High student-staff ratio → high teaching workload	+	None		
12	Low research output and weak academic publication record	+	None		
<del>13</del>	<del>Lack of skills to mobilize resources and to write good research proposals (ceased to be a weakness after SCARDA)</del>	<del>+</del>	<del>+</del>	<del>SCARDA-sponsored proposal writing workshops helped to eliminate this weakness; SCARDA also contributed on participatory research with farmers on indigenous chicken</del>	
14	Inadequate research infrastructure (insufficient laboratory space, outdated equipment, insufficient land at the University for on-station research trials, limited ICT facilities)	+	None	Local government support	
15	Bureaucracy: red tape / slow processing	+	None	Triggered by new policy emphasis to address the emerging national development needs that has necessitated restructuring within the university	
16	Limited leadership and change management capacity	+	+	SCARDA-sponsored a series of ARM workshops that emphasized on change management and agricultural research management	
<del>17</del>	<del>Weak internal links within FA NUL constraint on multidisciplinary</del>	<del>++</del>			

	SWOT factors	Change --,=,+,++	SCARDA contribution to change ++, +, =	Nature of SCARDA contribution	Primary contributor to change if not SCARDA
	<del>research approach</del> (has ceased to be a weakness)				
18	Lack of incentives/motivation for innovation systems research	+	+	SCARDA-sponsored two AIS workshops attended by about 15 NUL-FA staff	
19	<del>Poor linkages with other NARS partners (DAR, LAC, extension, NGOs, farmers, private sector, government)</del> (ceased to be a weakness after SCARDA)	++			
20	Weak international linkages and exposure	+	+	Dean's capacity improved on partnerships and linkages; hence currently the coordinator of FANRPAN	
21	<del>Lack of linkage between FA and employers of graduates, leading to inadequate feedback from employers into course curricula and delivery methods</del> (ceased to be true)	++	+	Tracer studies conducted under SCARDA helped to eliminate the weakness	
<i>Opportunities</i>					
22	Better linkages with international partners	+	+	(see above under 'Weaknesses')	
23	Stronger research culture	+	+	SCARDA workshops provided improvement in soft skills for Faculty members; also, the ARM, FPR workshops all contributed to improving the research culture	
24	Creation of a research coordination mechanism at FA-NUL or NARS level	+	++	The case of LECARD, triggered by SCARDA; just to make stakeholders see the need to work together was a big contribution	
26	<del>Ample funding for MSc students</del> (Rephrased to – "Availability of funding for tertiary education – Undergraduate and postgraduate e.g. through the NMDP")	+	None		
<i>Threats</i>					
33	<del>Inadequate coordination of research between NARS actors leading to duplication/inefficiencies and sub-optimal use of resources</del> Rephrased to: "Sub-optimal use of resources due to uncoordinated research at national level"	+	+	Now people in the same discipline within the NARS know one another and can communicate freely, because of the SCARDA engagements in the workshops kind of fostered shared vision, cause and mandate	

## Updated SWOT Table

Table 4 shows the updated SWOT status totalling 40 for FoA-NUL. Depending on the identified priorities for FoA-NUL, it would be fitting to rank the SWOT factors in each quadrant and select key ones for temporal monitoring. Besides, the SWOT table should be a good starting point on issues to do with agriculture even as NUL embarks on the strategic plan review process.

Table 4: Updated SWOT tables

<p><b>Strengths</b></p> <ul style="list-style-type: none"> <li>#Skilled, diverse and energetic staff</li> <li>#Balanced age and gender composition of faculty staff</li> <li>#Staff retention is good compared to other sector agencies like DAR and LAC</li> <li>#Basic infrastructure in place</li> <li>#Diverse, good quality undergraduate and graduate programmes</li> <li>#Internationally recognised curriculum</li> <li>#Existence of a Faculty Journal</li> <li>#Increased predisposition to innovative and multidisciplinary research by staff members</li> <li>#Devolved governance to the deans level</li> <li>#Expansion into post-graduate training</li> </ul>	<p><b>Weaknesses</b></p> <ul style="list-style-type: none"> <li>#Low research output and weak academic publication record</li> <li>#Inadequate research infrastructure</li> <li>#Limited leadership and change management capacity</li> <li>#Lack of incentives/motivation for innovation systems research</li> <li>#Weak international linkages and exposure</li> <li>#Poor remuneration (hence inability to attract high caliber academic staff, inadequate laboratory and ICT support staff)</li> <li>#No research policy at University level</li> <li>#Poor dissemination of research outputs to extension, farmers, NGOs, policy makers and other practitioners.</li> <li>#Lack of an outreach strategy</li> <li>#Little appreciation by administration for field work, extension and community service activities and lack of funding for such activities</li> <li>#Poor funding situation (for research and operational)</li> <li>#Bureaucracy: red tape/slow internal administrative processes</li> <li>#Lack of internal M&amp;E systems</li> </ul>
<p><b>Opportunities</b></p> <ul style="list-style-type: none"> <li>#Prospects for staff development</li> <li>#Research potential</li> <li>#Income generation</li> <li>#Better linkages with international partners</li> <li>#Stronger research culture</li> <li>#Creation of a research coordination mechanism at FoA-NUL or NARS level</li> <li>#Support farmers to form associations</li> <li>#Ample funding for MSc students (Rephrased to: "Availability of funding for tertiary education – Undergraduate and postgraduate e.g. through the NMDP")</li> <li>#Favourable political climate</li> <li>#Current Lesotho Government strategic orientation towards agricultural value chain development</li> <li>#Lesotho Government emphasis on agriculture-led economic growth</li> <li>#Climate change</li> </ul>	<p><b>Threats</b></p> <ul style="list-style-type: none"> <li>#Sub-optimal use of resources due to uncoordinated research at national level</li> <li>#Government policy on subsidies</li> <li>#Faculty is not recognized as a research organization</li> <li>#Heavy reliance on government subvention for research</li> <li>#Climate change</li> </ul>

## Conclusions

The Government of Lesotho has identified agriculture in the NSDP (2012 – 2017) as one of the four key sectors to drive overall economic growth. This commitment was recently reiterated by the signing of the CAADP Compact in September 2013.

As the sole teaching and research institution in the country, FoA-NUL was selected by SADC-FANR as a focal institute for SCARDA implementation in Lesotho. In strengthening the institutional capacity of FoA-NUL, SCARDA hoped to trigger the strengthening of other sector agencies based on the agricultural innovation systems framework with FoA-NUL playing an important brokerage role. The NSDP also recognizes this pre-eminent role of FoA-NUL - specifically in strengthening the capacity of farmers and institutions.

Although the traditional mandate of FoA-NUL has remained the same over the last two years, the Faculty has increasingly taken on the role of advocacy by engaging policy makers on key issues affecting the sector. An example is the prominent role played by designated faculty representatives in the national CAADP country process that culminated in the recent signing of the CAADP Compact. This consultative spirit emanates from SCARDA since the formation of LECARD that promoted greater engagement with stakeholders based on agricultural innovation systems principles.

Key organizational restructuring and changes in programs have taken place in NUL and FoA, respectively. Program re-orientation at the Faculty level were largely informed by the tracer studies conducted under SCARDA in 2010. Staffing in the Faculty reflects a favourable gender equality situation and the the age profile for academic staff members depicts a good succession planning; but the balance of technicians to researchers is low at only 0.17%.

The funding situation for the Faculty remains fragile. There is no internally generated funds nor funds mobilized from external sources other than the Government. However, the University has in place appropriate structures for resource mobilization and has made remarkable progress in terms of ICT infrastructure for information access by both staff and students. Internal management reforms hinged on devolution of key administrative functions to deans' level have also fastened processes and procedures.

The FoA-NUL forged important linkages and partnerships over the last two years, namely: an MoU with FANRPAN on scientific research cooperation, policy analysis and research; synergistic collaboration

agreement on joint research with MoAFS; and conservation farming partnerships with FAO and University of Tennessee.

Of the 44 SWOT factors identified in 2011, 23 had changed positively (about 11 could be directly linked to participation of FoA-NUL in the SCARDA program) and 16 stayed the same. The major changes included a marked increase in academic staff capacity (with good gender balance) by about 32%, overall increase in student pass rate from around 65% to over 95%, and establishing feedback loops with workplaces that helped refocus curricula to meet the required competencies by the job market. Further, three new strength attributes were added, six weaknesses were eliminated and new opportunities were identified thereby depicting an overall positive institutional change for FoA-NUL.

## References

Annor-Frempong, I, Roseboom, J and Ojijo, N K O. 2012. A Pilot Study on Institutional and Organisational Changes in Selected National Agricultural Research and Education Institutes in Sub-Saharan Africa. Forum for Agricultural Research in Africa (FARA), Accra, Ghana.

National Strategic Development Plan (2012 - 2017). Ministry of Development Planning, Government of Lesotho, Maseru, Lesotho.

Roseboom, J. (2011). An Assessment of Institutional Change: Faculty of Agriculture, National University of Lesotho. Consultancy Report submitted to FARA.

Strategic Plan (2007 – 2012). National University of Lesotho, Roma, Lesotho.