Forging and Enhancing Partnerships Using Appropriate ICTs in Agricultural Information Management: a Case Study of an Academic Library in Lesotho

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Abstract

This outlines on-going innovative strategies by the National University of Lesotho (NUL) library which has broken the norm, and went beyond the campus tradition of managing agricultural information solely for “academics”. The service has forged links with farmers associations, an aid agency, women’s groups, media houses, government department and extension workers to collect, translate, synthesize, analyze document questions and answers on radio for a holistic agricultural information management. Evidence of food crisis in the country by 2007 is given, mainly in rural areas and highlands of the country which are inaccessible in many respects. It is argued that food insecurity breeds hunger and malnutrition. It is an indicator of poverty, absence of quality of life, and a fertile ground for diseases such as HIV/AIDS which has plagued Lesotho. It is further noted that famine, hunger and diseases are part of a raison d’etre for the MDGs 1, 4, 6, 7 and 8 that Lesotho is signatory to. In line with the NUL vision of taking the services to the people, the NUL Library takes the advantage of the CTA supported Question and Answer Service (QAS) project to devise means of opening up its previously costly and closed access facilities to the agricultural stakeholders country-wide. The Library taps on the affordable ICTs to link the academics to the practitioners. Imparting skills to farmers, recognizing their indigenous knowledge and channeling appropriate answers to their queries, using appropriate ICTs such as radio, cellular phones, portable electronic databases is found to be as important as it is to academics to combine their theory with practice, by receiving information from the people in the field, such that there a two-way communication among all stakeholders in sector is ensured. The project is described and observations on its impact enumerated. This is a lesson on partnerships, investing in agricultural information, ICTs and people who in turn accelerate agricultural productivity, embark of new cash crops that contribute to the eradication of poverty, environmental sustainability and development.

Keywords: Agricultural information management, innovations, ICTs, appropriate technology, development strategies, Lesotho.

Introduction

To show a brief video on Lesotho; its geography that entails lowlands and a difficult topography of highlands both of which determine the type of agricultural activity; an economic enclave of South Africa, with vibrant culture embraced by its proud resilient people of one of the few still existing kingdoms on the continent.

In June 2007, the head of Government of Lesotho declared food crisis in the country, and the second in five years. Analyst affirmed that it was the worst famine in 40 years. Bhim Udas,
the Lesotho World Food Programme (WFP) representative in the country lamented, and feared that prices for grains such as maize the staple food were likely to accelerate. Further, he observed that imports, mainly from South Africa would adversely impact on the “poor and vulnerable people including the HIV/AIDS affected and orphans”. On the very same year, the Ministry of Agriculture and Food Security (MAFS) cancelled its annual national agricultural show due to low productivity which was attributable to a number of factors including drought. All these made it difficult for any farmer to have anything to show at what would normally attract all categories and types of farmers from all over the country (See Fig. 1).

Whereas Lesotho used to produce about 30% of its total food requirement, by 2000 it was gradually becoming reliant on food aid and other humanitarian assistance. Moreover, as part of the southern African sub-region which is now the epicenter of the HIV and AIDS pandemic, Lesotho is losing one of the key drivers or investment for development, namely, the human resource. As a result, whilst in 2001 it ranked 127 on the UN’s Human Development Index, five years later it had sunk to 149. The World Bank and UN put Lesotho at the low income bracket with per capita of $790; and comparatively-speaking, its mortality rate is high (See Figure 2: Lesotho in southern Africa).

This scenario briefly summarizes a gloomy and worrisome performance, not only of the country’s Agricultural and food sector, but also of key indicators of poverty and constraints towards attaining the MDGs which Lesotho is signatory to. The situation consequently justifies the question as to why, as well as a clarion call for a holistic approach of addressing the need to contribute to the agricultural sector through partnerships and the application of appropriate and diversified Information, Communication and Technologies.

This is a discussion of an on-going project by which the NUL library has enhanced the already existing cooperation and then forged new links for a seamless agricultural information management campus-wide and country-wide.

**NUL’s library responds to the vision of taking the University to the people**

Of all types of development strategies, education is fundamental in the way it is people-centred; and to the extent that development is undoubtedly about the change of attitudes for the betterment of the lives of the people of any country.

At the apex of the education sector in Lesotho is the National University of Lesotho (NUL); the one and only university, founded in 1945 as a Pius XII College. It has gone through a number of phases, one making it a university of Botswana, Lesotho and Swaziland between 1964 and 1975. The university is located in the lowlands although through the Institute of Extra Mural Studies (IEMS) which is the Distance Teaching arm of NUL, the latter has small sites in the three regions that have hitherto been difficult to connect by Internet.

The centrality of a university library in teaching, learning and research in a given community epitomizes an indispensable role of **information** and **knowledge** in enlightening the target users. As is the case with the majority of universities, an academic library is known to have focused on a lecturer, a learner a researcher, as the main users of any academic library; and to a less extent to an extension worker. Albeit it being “national” in almost all respects, and despite the fact that Raseroka (1999) asserts that a university library in a developing African country is a **de facto** “national “ library, the National University of Lesotho (NUL) and its library have for many years remained exclusive to its core business of teaching, learning and researching within its campuses.
On the one hand, as a tradition, that kind of exclusion was understandable, for the following reasons:

- high costs of tertiary education could be affordable to only those who paid for it
- comfort zones that were enjoyed by traditional librarians within their physical libraries
- restrictive nature of the printed matter and often written in highly technical and in the English language, that characterized that type of traditional library collection
- the condescending attitude of an information-illiterate academic toward a rural dweller, an ordinary citizen or non-university library user

On the other hand, it makes no sense that a university education cannot have a relationship with practice and knowledge of its academics be confined to campuses; whilst government’s MAFS, almost single-handedly run a nation-wide agricultural extension work that is supported only by MAFS agricultural information services (AIS).

Ideally, all should jointly play a role in agricultural information and development.

**NUL’s vision, transformation, partnering with CTA and the WSIS factor**

The 2002 NUL vision which has been translated into the 2007-2012 *Strategic Plan* formulated a very laudable theme titled “in the service of the nation” and “taking the university to the people”.

“to be a leading African University responsive to national socio-economic needs; committed to high quality teaching, life-long learning, research and community service….”

Pursuant to this plan, each academic department or division, such as the library was expected to chart its way to reach out to the urban and rural dwellers that would give a meaning to the its purpose of serving the people. On its part the NUL library aimed at tapping on affordable appropriate ICTs to open up its collection for the people and for development. Ideally the NUL library strived to interact with faculties, in the normal processes of acquiring, utilizing, analysing and dispensing of synthesized information for the benefit of communities that otherwise disadvantaged by distance and channels.

The NUL’s vision and its Library’s mission coincided with three opportune phenomena; namely, one the UN’s MDGs, two the impetus of WSIS that ushered in among other things, the e-Agriculture era, and third, the partnership of the library with local and external partners such as the CTA plus the UN agencies that agreed to support and operate together with and within the NUL Library, a cooperative called the Development Information Centre (DIC) since 2005.

**The NUL’s library and the CTA’s Question and Answer Service (QAS) project**

The Technical Centre for Agricultural and Rural Development (CTA) which was established in 1983 under the Lomé Convention between the African, Caribbean and the Pacific (ACP) States and the European Union (EU), supported a regional project in southern Africa where Lesotho through the NUL Library was swift to offer to coordinate the national services. By so doing, it would be responsible for:

- Receiving technical assistance that include agricultural information
• Devising innovative ways and means of targeting, mainly the farmers
• Involving other relevant role players such as the regional node in RSA which produces and distributes “Outreach” the English language bulletin
• Tapping on ICTs to facilitate flow of information among local stakeholders
• Assessing the impact and determining the way forward

Modus operandi and Progress of the Lesotho QAS

For the current first phase since 2007, the project has marked progress and
• Established the Management Structure of the comprising librarians, farmers and their unions representing all the regions, the College of Agriculture, Media House, with principal institutions as Faculty of Agriculture of NUL and the Ministry of Agriculture’s AIS, the largest and oldest extension service in the country
• Opened a dedicated office within the NUL Library to attend to the project
• Provided fittings, furniture and facilities such as fax, telephone, while clearing toll-free telephone line is being installed
• Engaged a full time assistant for the “help-desk”, taking statistics and queries from both academic and non-academic clients
• Paid for one slot per week to each of the two selected local radio stations, in order to give a choice to listeners as to which station to tune to and at what convenient time
• Ensured that the radio programme titled “A farmer, pose your Question and be Answered” is officially launched by cabinet Minister of MAFS
• Sought professional translator of Outreach from English to the vernacular, and yet to distribute to regional centres and major clients
• Secured agricultural databases such as AGORA and The Essential Electronic Agricultural Library (TEEAL) “a library in a box” which is portable and may be taken to the remote but connected areas of Lesotho

The national radio covers the whole country and government officials from MAFS and Ministry of Trade and Marketing have so far aired programmes that are followed by questions
The second private radio station that where the university lecturers, researchers and farmers have aired programmes that are followed by questions and discussions
• Compilation of questions that are responded to on air or received by post or physically by walk-in clients of non-academic nature
• Incentive for lecturers to research about the topic on schedule, and talking about it on radio

Observed Impact and lessons learnt

Impact assessment has not yet been carried out, but the following are discernible:

• Lecturers find themselves compelled to use the QAS collection more when they prepare for the radio programmes, and when they return with difficult queries
• Researchers get the opportunity to announce their research findings, and in return get to know on the spot where they are weak, then go back to read more and return to provide more information
- Farmers are not only empowered to express their information needs, but also exposed to situations of having to seek it by all means, which is a lesson that in their day-to-day business, an academic library service can play a role.
- Judging from the exponential increase of the number of questions asked every week at the two stations, we learn that programmes are patronized and growing.
- With electronic information, costs of a virtual library are reduced.
- Assistance from one development partner makes it easy for another to support the next project requirement, as the old adage says, that unity is strength.
- Students who listen to radio programmes are also likely to combine their knowledge of theory with practice as stated by the questioning farmers, hence enable the University to produce graduates who train for the world of work.
- Use of the partnering libraries within Lesotho and the sub-region is enhanced through technical queries which are handled by inter-library handling regionally.
- Translated bulletins, synthesis from radio programmes and inputs from local practitioners, become an indispensable portion of the indigenous as well as endogenous knowledge that augment the library’s conventional collection.
- The majority of farmers, as learnt from the CTA assessment study, often fall in the category of those who have not gone through intensive formal education, who may not be said to be information literate, but are knowledgeable through experience.

**The type of questions asked**

- Categories and treatment of soils of Lesotho, their varied suitability for
- What crops and vegetables to grow during which seasons of the year in which agro-ecological zones of the Lesotho
- Drought-resistant crops
- Diversifying crops from food to cash crops
- How to grow non-traditional vegetables such as mushroom, olives
- Growing and prospects of selling sunflower grains
- Un-ban the growing of dagga which grows well but illicitly in Lesotho
- Where to get synthesized guides and in the vernacular language
- Government regulations when exporting leather and hides as individuals or a group of farmers
- Is the NUL Faculty of Agriculture admitting more men than women
- Subsidy when buying large scale irrigation equipment, and why the ox-driven ploughing implements are not included yet popular in Lesotho
- How willing the academics are to volunteer visit to farmers to test their soils and advise accordingly
- Dairy industry requirements
- Strengthening Lesotho dairy association
- Lack of adequate healthy animal
- Availability of the bulletins written in the local Sesotho language

**Fitting the lessons and impact into the MDGs**

Notably, famine, hunger and diseases that have plagued Lesotho are part of a *raison d’etre* for the MDGs 1,4,6,7 and 8.
The signing of the Millennium Declaration by 189 countries that include the southern African sub-region and Lesotho, marked a commitment to addressing development challenges. It cannot be ascertained that at what level each of the innovative strategies that are being put to test in an effort to overcome hunger, alleviate poverty, combat infant mortality or help protect the environment. Yet, the link exists between progress and those numerous efforts, positive actions, attitude of stakeholders who embrace the project not only at the national, but also at the sub-regional and global levels. The following are just the examples of how the scheme fits into the set global goals.

**GOAL 1  Eradicating extreme poverty**

- Discussions that have ensued between academics and practitioners on non-staple food, such as mushroom, fish, and asparagus stimulate not only productivity and quality in this respect, but cash crops that reduce hunger and extreme poverty.

**GOAL 4  Reduce child mortality**

- Interest in good feeding, home gardens and nutritious food will not only assist lactating mothers, but also help reduce mortality rate as seen in Figure 2
- Women’s groups that participate in the programme get learned on means of livelihoods, income-generating activities, seek and use enlightening information written in Sesotho, some of which are on

**GOAL 6  Combat HIV/AIDS and other diseases**

- It has been argued that HIV and AIDS are prevalent where there is poverty and hunger which are also a factor in poor agricultural productivity
- The UN agencies such as WHO which are partners in DIC are also providing massive literature or development information on how to respond to the pandemic, the examples is Health Information Network Databases (HINARI).

**GOAL 7  Ensure environmental sustainability**

- A Soil scientist from the Faculty of Agriculture responded to one of the radio callers that, a barren soil is susceptible to erosion and land degradation, a piece of information that goes a long way toward environmental protection
- At the QAS launch in Maseru in 2005, the Principal Secretary for the Ministry of Forestry attended and expressed interest to participate in the project

**GOAL 8  Develop a global partnership for development**

- Various local, regional and international partners are active in the NUL QAS and DIC projects and in numerous fields that make agriculture a real threshold for development in a country such as Lesotho. They are governmental, NGOs, CBO, individuals, academics rural and urban dwellers of sorts.

**SUSTAINABILITY, RECOMMENDATIONS AND THE WAY FORWARD**

Currently, the project is sustained by the NUL Library and the external donors. But as soon as the people see the benefit of information, and know where and how to source it, they
will certainly get it themselves. Luckily once the Internet connectivity and telecommunication infrastructure is available countrywide, it will be cheaper for all to have mobile phones, and for all the institutions to provide library service at affordable rates. The Lesotho Horticultural Association has remarked that the QAS is home driven, involving the local expertise and thus sustainable!

There is a need to extend the service in a more vigorous manner to the four distance centres of NUL, especially those operating in the highlands which are in many respects difficult to access.

By May 2008 there are indeed prospects for the mentioned innovative strategies that talk well to those who have extended a hand.

References


CTA CTA Agricultural Information Assessment study for southern Africa – the Lesotho Chapter, 2007.


NOTE: Appendixes of Figures and pictures will be shown during the oral presentation.