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The Current State of Agribusiness Education and Training in Africa

By

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Abstract

To spur rural development and food security, agricultural education and training in Africa has traditionally focused on increasing agricultural productivity on the farm. More recently, development practitioners and policy makers have broadened their attention to include agribusiness or agro-industries. However, the role of Agricultural Education and Training in fostering agribusiness growth in developing countries is relatively underexplored. This paper analyses the current state of agribusiness education and training in Sub-Saharan Africa. The paper is organised around five objectives. First, the paper characterises the macroeconomic environment—political, economic, social and technological—in which agribusiness development is taking place in Africa. Against this background, the implications for Agricultural Education and Training of a growing and evolving agribusiness sector are explored. With a focus on agricultural economics departments, the paper assesses the current status of agribusiness education and training offered in African academic institutions. While significant progress has been made in integrating agribusiness management into university curricula, the current offerings are far from comprehensive. Using a case study approach, new models of executive training for agribusiness being offered by non-governmental organisations, academic institutions and the private sector are benchmarked. The paper concludes by recommending strategies for developing agribusiness education and training initiatives so as to bridge the gap between current offering and industry needs.

Keywords: Capacity Building, Agribusiness, Agro-industries, Executive Training and Education

The Current State of Agribusiness Education and Training in Africa

1. Introduction

The central role of agriculture in economic growth and development in Africa has long been widely recognised. To spur rural development and food security, agricultural education and training (AET) in Africa has traditionally focused on increasing agricultural productivity on the farm. More recently, development practitioners and policy makers have broadened their attention to include agribusiness or agro-industries—the post-harvest activities involved in the transformation, preservation and preparation of agricultural production for intermediary or final consumption (Wilkinson & Rocha, 2008). Because agro-industries are uniquely situated between raw and natural sources of supply and the dynamics of food and fibre demand, promotion of agro-enterprise development can provide positive impacts on employment in both rural and urban areas; offer market access to small-holder agriculture; present business linkages to small and medium-sized enterprises (SMEs); and enhance food security by reducing post-harvest losses and extending the shelf-life of food and fibres for the rapidly increasing urban poor. The combined effects of employment gains and food security through improved agro-industry competitiveness can be an important strategy for reducing the overall poverty within developing countries.

Developing strong and viable agro-industries requires a different mix of skills, policies and institutions from the traditional, mostly farmer focused ones. Agribusinesses have a different objective function—maximizing profits—and often require an enabling environment to thrive. To fill this gap, a multitude of new policies, initiatives and institutions have emerged in developing countries in the last two decades. These interventions, mostly designed to facilitate the participation of SMEs, include warehouse receipts, business clusters, micro-finance institutions, technology parks, business development services, contract farming and public investment in transport and infrastructure investments. Much has been written about both the theoretical basis and the empirical evidence of these interventions. The role of AET in fostering agribusiness growth in developing countries is, however, relatively underexplored. In this paper we use the term ‘agribusiness education and training’ to distinguish the specific focus on agribusiness as opposed to the more general AET that includes but is not limited to agribusiness.

2. Scope and Objectives

While the status of AET in Africa has been under analysis within the past decade, focus on agribusiness *per se* has been limited. It is undisputed that the market for students graduating from agricultural science departments has changed significantly over the years from mainly government sector to private agribusiness sector and non-profit organisations. Historically, African countries based their agricultural education and training systems on meeting the human resource requirements of public service or parastatals. Most graduates found employment in the government civil service. Economic crises and structural adjustment programmes in most countries have minimised recruitment of civil servants. The private

sector and entrepreneurial skills have become increasingly important within globalised, newly liberalised and increasingly technologically advanced economies. Demand for agribusiness leadership and management has come from an industry characterised by evolving structures and business models (De Lange & Van Rooyen, 2002). Academic institutions and non-governmental organisations (NGOs) that provide education and training are struggling to meet the new demand for skills for the emerging agribusiness sector in terms of number of people trained, quality of training programmes and relevancy of skills offered. Further complicating the matter, very little research has been done to understand the current dynamics in academic as well as executive training for agribusiness in Africa. Consequently, investors, NGOs, public-policy makers and leaders of academic institutions often make key decisions on how to adapt to this changing agribusiness environment with limited information and expertise on the subject.

The goal of this paper is to analyse the current state of agribusiness education and training in Sub-Saharan Africa. The paper is organised around five objectives, which are presented sequentially, as follows:

1. Characterise the macroeconomic environment in which agribusiness development is taking place in Africa.
2. Explore the implications on AET of a growing and evolving agribusiness sector.
3. Assess the current status of agribusiness education and training in African academic institutions.
4. Benchmark new models of executive training being offered by NGOs, academic institutions and the private sector.
5. Recommend strategies for developing agribusiness education and training initiatives that bridge the gap between current offering and industry needs.

3. Context of Agribusiness in Africa's Economic Development

Before we look at the supply and demand dynamics of agribusiness education and training, it is important to understand the macroeconomic environment in which agribusiness development is taking place in Africa. In addition to the general contributions of agribusiness to economic development mentioned in the introduction, urgent efforts to improve agro-industries in Africa are further justified by the potential negative impacts of the looming global economic crisis on African economies. The global financial crisis of late 2008 has led to a slowdown of world economic growth, reduction in trade and recession in many countries. This economic crisis will have untold impacts on African agribusiness and the pace of agro-industrialisation, but it is clear that the rising calls for de-globalisation, protectionism and resurgence of economic nationalism in some countries may alter the policy mix or response to this urgent need to act. While the prospects for improving Africa's integration into the global economy are likely to be enhanced as the world economy recovers, it is important at this juncture that the implications of the global economic crisis be understood so that African agro-industries are better positioned to become competitive players in national, regional and international markets.

If agribusiness capacity building and training is to make meaningful contributions and remain relevant, the major forces shaping development of this sector must be identified and assessed. Examining the forces that influence agribusiness helps to provide insight into the policies and innovative strategies needed to ensure that this sector better contributes to

economic growth and poverty reduction goals. Further, these factors can be used in designing curricula for agribusiness education and training. Table 1 provides an overview of many of the key forces that influence the structure and performance of agribusiness and agro-industries in Africa. As a basis for further discussion, a PEST—policy, economic, social, technology—analytical format is used to identify the main opportunities and threats shaping African agribusiness.

Table 1. Main Forces Influencing Agribusiness in Africa

Factor	Opportunities	Threats
Political Legal	<ul style="list-style-type: none"> • Political stability in most countries • Regional harmonisation of policies • Preferential trade agreements, trade policy 	<ul style="list-style-type: none"> • Political conflicts in some countries • Corrupt government regimes • Limited enforcement of property rights • Poor business climate • Limited law enforcement
Economic	<ul style="list-style-type: none"> • Economic liberalisation well underway • High economic growth rates in recent years • Increasing foreign direct investments • Central role of agriculture in most economies 	<ul style="list-style-type: none"> • Global recession • Global financial crisis • Poor transport infrastructure • Legal barriers to trade • High interest rates • High inflation and unemployment • No macroeconomic stability
Social Cultural Human Demographic	<ul style="list-style-type: none"> • Growing population—increasing market • Rapid urbanisation • Improved access to education and health • Gender—increasing role of men in farming, women’s rights 	<ul style="list-style-type: none"> • HIV/ AIDS • Limited adoption of new technology • Cultural preferences for specific staples
Technological	<ul style="list-style-type: none"> • Improved access to information (mobile phone and Internet) • Advances in biotechnology • Technology leap-frogging • Investment in public research (NAROs and CGIAR) 	<ul style="list-style-type: none"> • Diverse agro-ecologic conditions limit technology diffusion • Weak national scientific and research institutions and universities • Limited enforcement of intellectual property rights

Today’s agribusiness managers have to contend a broad range of socio-economic issues such as gender, HIV and AIDS, conflict resolution, technological advancements, environmental sustainability, natural disasters, global economic crisis and ever-changing socio-political dynamics that are part of the agribusiness operating environment. It is the responsibility of academic institutions and other capacity-building organisations to churn out the type and number of graduates that are able to tackle not only today’s challenges, but future ones that are yet unknown. This will require great vision, careful planning and perhaps institutional innovation that departs from traditional paradigms.

4. Implications for Agricultural Education and Training

Having recognised the forces shaping agribusiness development in Africa, we now explore the implications on AET. Significant human capital development is required to fulfil the growing need for skills and expertise to exploit the opportunities and mitigate the threats mentioned in the proceeding section. We divide the implications of these changes for AET into three fronts: service providers, target market and curriculum design.

Unlike other traditional fields of AET, the responsibility of building skills and expertise in agribusiness does not lie exclusively in the public domain. Academic institutions are no longer the “sole guardians of knowledge.” In addition to traditional institutions such as universities, colleges, technical colleges, vocational schools and extension agencies, new models are emerging out of entrepreneurship and executive training programmes by NGOs. Both academic institutions and NGOs are presented with the opportunity to go beyond just window-dressing existing programmes to design and implement more effective, successful agribusiness programmes that are relevant not only today but will remain so in the future. The envisaged effect is that institutions produce the kind of graduate that meets agribusiness needs of today and is prepared to tackle challenges in the future. Figure 1 illustrates the stylised approaches to capacity building and training for agribusiness. On one end we have the traditional agricultural training and education offered in African universities and colleges. Some of these academic institutions have added agribusiness management either as special elective courses under the traditional disciplines of the faculties of agriculture (animal science, crop science, agricultural economics, soil science or agricultural engineering courses) or as a separate field. On the other end are entrepreneurship development initiatives, mostly offered by donor-supported NGOs or government initiatives. Several of these initiatives have segmented their business development services by sectors that are popular for SMEs, such as tourism, retailing, catering and agribusiness.

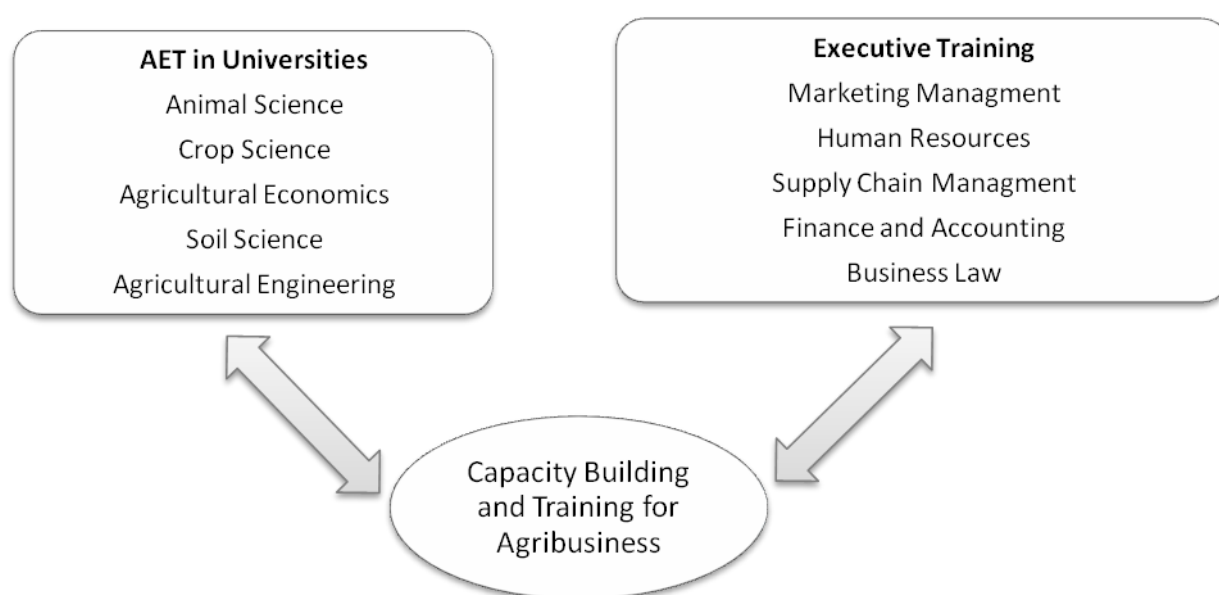


Figure 1. Approaches to Capacity Building and Training for Agribusiness

The target market, or beneficiaries, of agribusiness education and training is much more diverse than that of traditional AET. The breadth and depth of this capacity building for

agribusiness includes students, farmers, SMEs and agribusiness executives. The balance of this paper focuses on the higher-end agribusiness skills that are mostly targeted at students and executives from established agribusinesses.

Because of the wide range of service providers, coupled with a highly diverse target market, there is a plethora of possible curricula that seem to satisfy unique niches. These vary in length, format and level of rigor from short courses (often one day to weeklong), seminars, conferences, full- and part-time diploma, certificate and degree programmes. Figure 2 benchmarks the current offering of agribusiness education and training in Africa. Along the vertical axis lie the different targeted beneficiaries of such training. The horizontal axis distinguishes between practical and academic orientation of a curriculum.

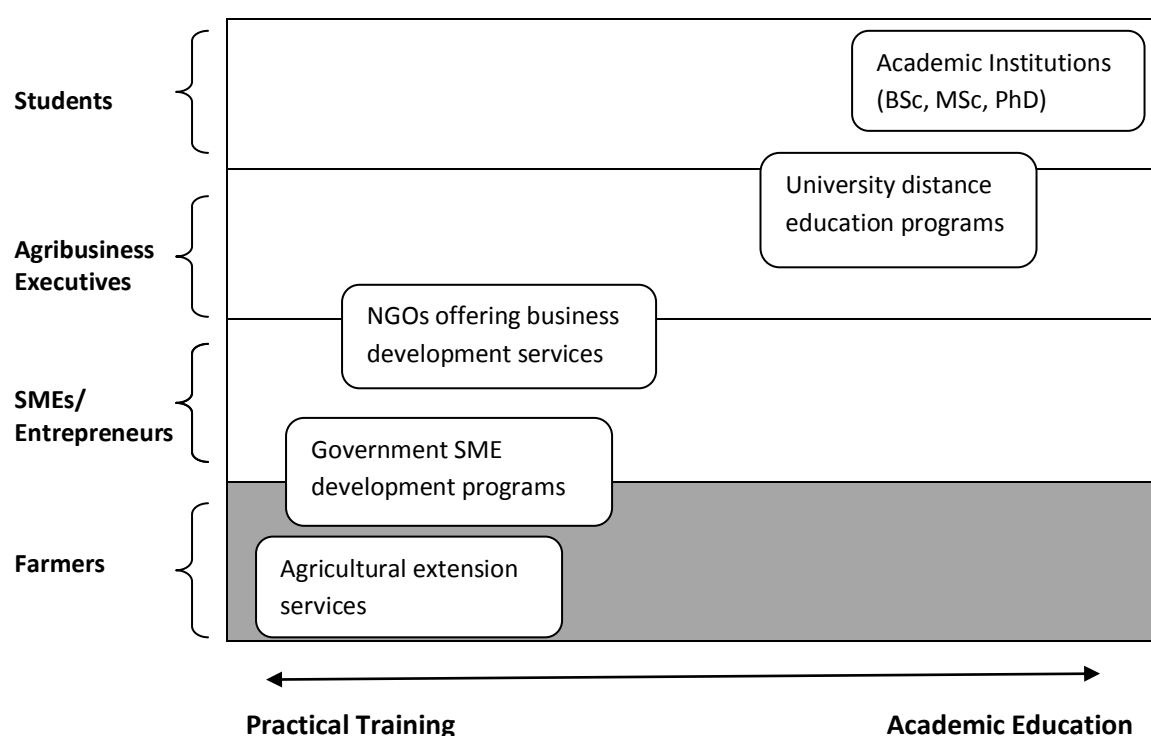


Figure 2. Benchmark of Agribusiness Education and Training Programmes in Africa

5. Academic Programmes

The term “agribusiness” was coined at Harvard University in 1957. It would be decades later before the area developed into a field for academic specialisation. “Traditionally, agricultural economics departments offered this market an individual with a degree in agricultural economics who had taken a management course or two during their graduate program” (Akridge et al., 1994). Some pioneers in the graduate agribusiness education market include Harvard University, Santa Clara University, and Iowa State University. As noted by Akridge et al (1994), ‘these agribusiness programmes are orthodox business school programmes that have agribusiness components’.

As agriculture has become more industrialised, research needs within agricultural economics have changed, with greater emphasis now being placed on agribusiness. In particular, there is an ever-increasing need for research on the operations of the agribusiness sector as supply chains become more tightly aligned; businesses become more consolidated with mergers, acquisitions, joint ventures and strategic alliances; and a general industrialisation mentality unfolds (Dooley & Fulton, 1999). Agricultural economics departments have increasingly taken notice of these trends or new realities and have started responding to these demand factors. Norman and Obwona (2001) noted how institutions had moved from an initial response of only changing department names to reflect agribusiness to having programmes that place more explicit emphasis on agribusiness. It was found that general agriculture degrees, sometimes with an option in agricultural economics, are increasingly being complemented or supplanted by agribusiness and agricultural economics bachelor level degrees. For example, as of 2001, Egerton University was annually producing 60 graduates in agricultural economics and 50 graduates in agribusiness (Norman & Obwona, 2001).

African universities ultimately will be responsible for replenishing the stock of human capital in their research and extension services, and for providing them with the broader set of skills necessary to grow agriculture in the 21st century (World Bank, 2007). Academic institutions have a central role to play toward capacity building in agribusiness. Christy (2009) has identified three roles that universities have in the development of agribusiness:

- Analyse public policies and regulations that impact, both positively and negatively, the competitiveness of agribusiness.
- Design and evaluate alternative institutions that strengthen SME linkages and smallholder access to national, regional, and global agro-industry supply chains.
- Offer innovative capacity-building programmes to enhance the economic performance of agribusiness.

5.1 Current Offerings by African Universities and Colleges

Africa now houses roughly 300 universities. Three-quarters of African countries offer some tertiary-level training in agricultural sciences. In short, extensive institutional infrastructure for agricultural education and training has been put in place (World Bank, 2007). Table 2 shows some key institutions that offer degrees with an agribusiness focus (AET Africa).

How should academic programmes in agribusiness be structured to produce the type of graduate than can be at the forefront of pushing the development agenda? A report by the World Bank established that AET supply is often out of synch with labour market demand in terms of knowledge and practical competencies, especially agribusiness, basic management and problem solving (World Bank, 2007). In the United States, a number of studies on the state of agribusiness education have been commissioned over time. Boland, Lehman, & Stroade (2001) found 115 programmes at undergraduate level with degrees or majors in agribusiness management within the United States. Programmes were found to be lacking some essential elements such as human resources, agricultural or business law, strategy and other integrative management courses as well as international and global dimensions of agriculture. In 2004, the National Food and Agribusiness Management Education Commission conducted a study with the objectives of describing the current state of food and agribusiness management education at two- and four-year colleges and universities in

the United States, identifying a set of key issues facing food and agribusiness management programmes, developing a set of recommendations on these issues and then communicating these recommendations broadly through a national conference, professional meeting presentations, reports, and a web site. The study revealed that most agribusiness curricula remain rooted in agricultural economics with business management courses being the exception rather than the rule. The undergraduate curricula for agribusiness could best be characterised as collections of courses rather than cohesive programmes (National Food and Agribusiness Management Education Commission, 2006).

Table 2. Agribusiness Programmes

Program	Institution	Country
Agri-business Management	Co-operative College	Zambia
Bachelor of Agribusiness Management	Makerere University	Uganda
BCom (Agribusiness Management)	University of Pretoria	South Africa
BSc Agricultural Economics and Agribusiness Management	University of Swaziland	Swaziland
BSc (Agric) (Agricultural Economics / Agribusiness Management)	University of Pretoria	South Africa
BSc Agricultural Economics and Agribusiness	University of Ghana	Ghana
BSc in Agribusiness Management	Egerton University	Kenya
BSc in Agricultural Economics and Agribusiness	Sokoine University of Agriculture	Tanzania
BSc in Agribusiness Management	University of Malawi	Malawi
Cooperative Development and Agri-business	Co-operative College	Zambia
Dip. Agribusiness & Marketing	Bukura Agricultural College	Kenya
Master of Agribusiness Management	Makerere University	Uganda
Master of Science in Agribusiness Management	University of Malawi	Malawi
MSc in Collaborative Master Program in Agriculture & Applied Economics	Egerton University	Kenya
PhD Agricultural Economics and Agribusiness	University of Ghana	Ghana
PhD in Agriculture & Applied Economics	University of Malawi	Malawi
Postgraduate Diploma in Agribusiness Management	Busoga University	Uganda
BSc Agriculture and Natural Resources (Agribusiness)	Africa University	Zimbabwe

According to World Bank (2007), AET systems currently in place suffer from five main weaknesses: declining enrolments, professional isolation, narrow and outdated curricula, inadequate staffing and insufficient pedagogical inputs. Surveys of agribusiness executives (Boland et al., 2001; Breazeale et al., 2004; Wachenheim & Lesch, 2004) have found that the most important skills for new graduates to possess were personal qualities and characteristics such as the ability to communicate and work with others as well as

administration and leadership qualities. The “new” agricultural professional must be market-oriented, able to learn and adapt, able to innovate and solve problems and able to listen and communicate (World Bank, 2007).

In a survey of agribusiness executives in the United States, Wachenheim and Lesch (2004) found an ability to communicate and work with others to be the most important skills for new graduates to possess. In Uganda, Makerere University used the Agribusiness Management Aptitude and Skill Survey questionnaire and results were concurrent with results worldwide. Personal qualities was rated the highest followed by administration and leadership qualities. Communication skills were rated third, business and economic skills fourth, followed by technical skills and computer, quantitative and management skills. The least-important category covered previous employment and general experience (Breazeale et al., 2004).

Agribusiness courses need to be reflective of industry interests. Graduates in this field find employment in agribusiness firms, NGOs, governments, research and consulting firms as well as academia. This can be done by cultivating linkages with agribusiness and recognising the qualities that agribusiness requires in graduates. Linkages of academic programmes to actual agribusiness firms are useful for

- developing programmes that not only suit current needs of firms but equip and train students for tasks that may not be present today;
- providing practical training opportunities and industrial experience; and
- developing soft skills in students that may be difficult or impossible to acquire in classroom environments.

The International Food and Agribusiness Management Association conducted a survey on subjects’ views concerning agribusiness education. The objective was to elicit preferences for components of undergraduate agribusiness education from a diverse set of firms tied by a common interest in international agribusiness (Wachenheim & Lesch, 2004). Among suggestions for agribusiness program leaders, industry executives highlighted diversity and exposure to diversity (thought, race, gender, and culture) as important. Agribusiness education should aim at providing this.

Makerere University’s Faculty of Agriculture (MUFA) restructured its undergraduate and graduate programmes to reflect the economic and political realities African universities face. Without this measure, Makerere University risked becoming less relevant to the agribusiness sector in Uganda. MUFA made a strategic decision to work with the private sector in updating its curriculum to enable it to produce graduates with the skills and qualifications desired by private-sector firms working in the agribusiness area with Uganda (Breazeale et al., 2004). Consequently, Makerere has gone on to separate its master’s degrees into two distinct degrees, namely agricultural economics and agribusiness (Norman & Obwona, 2001). In terms of the agribusiness degree, the university is planning to offer it on a part-time basis as well as full-time basis through holding evening classes. It is anticipated that a part-time agribusiness master’s degree will attract private sponsorship both on the part of those employed full-time and, in some cases, employee institutions. In connection with the agribusiness master’s degree, Makerere set up an advisory board consisting of representation from the private sector. Such efforts at Makerere University in Uganda

reflect the level of progress that can be achieved when academic institutions work together with agribusiness in shaping curricula.

The African Agricultural Economics Education Network launched the Collaborative Master Program in Agricultural and Applied Economics in Eastern, Central and Southern Africa in 2005 following the realisation that demand for high-quality agricultural economists exceeded supply. Its underlying premise is that highly trained local professionals must address the challenges posed by far-reaching changes in global and local economies, technology and marketing by adapting their advanced knowledge and methods to the particular institutional, political and economic circumstances of Eastern, Central and Southern Africa. It follows the recognition of the need to boost the human capital at postgraduate level as part of efforts in capacity building for African agriculture. The program has drawn participants from institutions in Botswana, Ethiopia, Kenya, Malawi, Mozambique, Rwanda, South Africa, Swaziland, Tanzania, Uganda, Zambia and Zimbabwe. The program offer Agribusiness Management as a field of specialization. The program is designed to attract an expanded range of applicants including women by providing information on prerequisite courses and cost-effective means to obtain these. Participants are drawn from a range of applicants and the opportunity to take “make-up” courses is available. This, it is hoped, makes the program more appealing even to women (African Agricultural Economics Education Network, 2004).

Of note elsewhere in Sub-Saharan Africa are the following efforts of collaborations with agribusiness. At the University of Pretoria in South Africa the ABSA Chair in Agribusiness Management was introduced in 1999 to become part of the portfolio of courses presented by the Department of Agricultural Economics and Rural Development at the University of Pretoria. The ABSA Chair in Agribusiness Management aims to supplement the capability of agribusiness to face the challenges of a sector in flux, through innovative training programmes, research and outreach. Agribusiness Management is offered by the Department of Agricultural Economics at the University of Pretoria as one of three areas of specialization in Agricultural Economics. Programmes on offer include BCom (Agribusiness Management) and BSc Agriculture (Agribusiness Management/Agricultural Economics).

5.2 Quality of Current Academic Training in Agribusiness

As evidenced above, several African universities have responded to market demand by including agribusiness specialisation in their Agricultural Economics departments. What remains questionable is the quality of the graduates emerging from these programmes. To explore this issue we devise a litmus test for agribusiness graduates: Are holders of agribusiness qualifications able to effectively replace those with business administration backgrounds? In other words, in applying for a job at an agribusiness company, how well do students with a master’s degree in agribusiness compete against students with a traditional master’s degree in business administration? While there is no hard data to allow rigorous analysis of this question, anecdotal evidence shows a higher preference and salary for MBAs relative to their MA counterparts. The unfortunate outcome of the current effort may be the production of graduates who cannot compete in the market because they do not possess enough technical training to work in other sectors of agriculture and yet do not possess enough management training to be a choice manager over an MBA candidate. Under this scenario, an agribusiness student may be viewed by employers as a jack of all trades and

master of none. “More than minor tinkering would be required to convert the master's degree in agricultural economics, with its economics underpinning, into a close substitute for an MBA degree” Akridge, et al, 1994).

It is not all doom and gloom for academic programmes in agribusiness management. There are several success stories to report. Sokoine University's agribusiness program is not only generously funded by the government of Tanzania, but also receiving funding from donors such as Norwegian Agency for Development Cooperation (NORAD). Since inception of its agribusiness program, the department has experienced capacity problems because demand for the agribusiness program has been very high (De Lange & Van Rooyen, 2002). The University of Zambia invites current agribusiness managers and leaders as guest lecturers in order to provide students with insight on how to run a successful business (De Lange & Van Rooyen, 2002). Following consultations with industry and academia, De Lange and Van Rooyen's study found some of the following to be critical for successful agribusiness programmes:

- Utilise a case-study approach that focuses on real-world application.
- Provide more practical training and exposure for students.
- Develop computer literacy.
- Establish strong foundations of economics and finance among agribusiness students.
- Improve negotiation skills and ensure better understanding of global trade issues, procurement and other supply chain-related issues.
- Make conscious effort to enrol female students, train female farmers in agribusiness (De Lange & Van Rooyen, 2002).

It is important to note that despite their best intentions, the hosting departments of agribusiness programmes in African universities are still plagued by a host of problems, some of which transcend the university and others that seem unique to the faculties of agriculture. In a comprehensive study entitled “Agricultural Education in Africa: Managing Change” Charles J. Maguire of the Rural Development Department at the World Bank identified the following problems as specific to agricultural education among African universities:

- Isolation of the agricultural university from other parts of the university system
- Lack of communication with employers of university graduates, the market
- Poor practical skills
- Decreased funding as urban focus gathers strength
- Weak connection with other parts of the agricultural education system such as colleges, vocational schools, farmer training networks
- High unemployment of university graduates, often due to lack of relevance of curriculum
- Failure to attract best quality students from secondary schools
- Inbreeding—teaching and research staff are frequently graduates of the same university or college, thereby excluding the entry of new ideas from the wider world of academia and research (Maguire, 2000).

5.3 Distance Education

Among the issues plaguing current agribusiness education and training efforts within Sub-Saharan Africa is that departments are often understaffed and most faculty lack PhDs. There have been difficulties in retaining staff that go overseas to further their education. Visits by Chris Barrett of Cornell University and Suresh Babu of the International Food Policy Research Institute to a number of agricultural economics departments in African universities established that the level of interest in these institutions was quite high (Wyeth, 2002).

Several constraints to the effective implementation of distance education programmes exist in Sub-Saharan Africa. Some institutions have “technological constraints” that make distance learning challenging. For distance education to work more effectively, the issues of information and communication technologies need to be addressed within academic institutions and centres of learning. If a program is delivered only over the Internet, some countries are unable to take full advantage of it immediately. The Internet is in most cases inadequate and expensive or both (Wyeth, 2002). Therefore, all forms of media will have to be utilized to make delivery more effective.

6. Executive Training in Agribusiness

The preceding section focused on agribusiness education offered by African academic institutions—mainly departments of agricultural economics in universities and colleges—but the market for professional agribusiness education is highly fragmented. Potential clients for such programmes range from major food companies to small, rural, owner-managed farm input firms. Even within firms, needs that might be met by professional agribusiness education programmes are diverse, ranging from professional development for the CEO, to sales training for field sales personnel, to an outlook seminar for the corporate planning department (Akridge et al., 1994). Continuing management education for practicing agribusiness managers in mid-size and larger firms also forms an important part of the demand for executive agribusiness education and training. Agribusiness managers need regular updates on new technological developments and the managerial implications of such developments. This section explores executive training for agribusiness professionals that is currently offered by governments, NGOs, academic institutions and the private sector.

6.1 Government in Executive Agribusiness Training

A host of business development and support services are currently being offered by most governments either directly or through contracted agencies. Most of these initiatives are generic entrepreneurship development courses, but a few of them have divisions that are specially focused on agribusiness. Below we feature a few examples.

In South Africa, Red Door (Real Enterprise Development) is an initiative by the Department of Economic Development and Tourism, Provincial Government of the Western Cape. Although it is not specifically aimed at agribusiness, farmers benefit from the support to new and existing entrepreneurs in starting and growing their businesses (www.reddoor.gov.za).

At national level, the South African government’s initiative Small Enterprise Development Agency (Seda) provides business development and support services for small enterprises through its national network in partnership with other role players in small enterprise support. Seda also implements programmes aimed at business development in areas

prioritised by the government. Products and services to which entrepreneurs have access include, among others, information and advice, training and mentoring, business planning and registration, incubation and technology transfer as well as sector-specific training and development programmes (www.seda.org.za). While the program is stratified according to level of growth of the enterprise, there is no specialisation for agribusiness.

In Botswana, Local Enterprise Authority (LEA) promotes and facilitates entrepreneurship and enterprise development through targeted interventions within manufacturing, tourism and agriculture, as well as any services that support the three business sectors. In particular, LEA targets women, youth and the unemployed. It provides development and support services to the local industry needs of small, medium and micro enterprises, encompassing training, mentoring, business plan finalization, market access facilitation, and facilitation of technology adaptation and adoption. LEA does not provide finance to entrepreneurs, but it facilitates access to finance as well as provides support services to small, medium and micro enterprises, before and after funding (www.lea.co.bw). The intervention is also stratified according to level of enterprise development—from pre-start-up to business growth—and further specialised by type of industry.

6.2 Executive Training by Academic Institutions

A few universities have developed special part-time programmes for executives to boost revenue streams. While this model is common in most business schools, it is relatively underexplored in agriculture departments. Even rarer are universities that have customised agribusiness management programmes aimed at industry executives. In this regard, a handful of South African universities are pioneering.

The Department of Agricultural Economics at the University of Free State runs an Agribusiness Unit which holds market workshops every term, with a vision of “innovating strategy and management for the future success of Agribusiness”. Market workshops, held in an informal setting, are usually attended by about a 100 farmers, bankers or agribusiness people. Guest speakers who are experts in their field take part. The emphasis is on group discussions to anticipate future market trends and the appropriate business strategy. Scenarios and strategy sessions are also presented on request to agribusinesses and farmer or industry groups. Every semester a short course titled “Introduction to grain marketing in SA” is also presented. The Agribusiness Unit also provides a one-day course to assist in using SAFEX as a marketing tool consisting of Understanding the SAFEX environment, Using Futures for hedging, and Using Options for hedging (University of Free State).

The school of Agricultural Sciences at North-West University hosts the Centre for Agribusiness and Entrepreneurial Training. The centre is servicing mainly small farmers with short courses, the training of extension officers and any other contract business such as land assessment and feasibility studies for resettlement (North-West University).

Standard Bank, in partnership with Stellenbosch University, has established a Standard Bank Centre for Agribusiness Leadership and Mentorship Development. Based on the premise that successful agricultural transformation and land reform require skills and capacity development to enable proactive agribusiness leadership; effective business linkages and support systems; and pre- and post-settlement support, effective coaching and mentorship, the project consists of two separate interactive sets of program activities. Stellenbosch

University will initiate and coordinate a multidisciplinary postgraduate-level education consisting of PhD and master's degree programmes for knowledge development and research. Secondly, a mentorship program will establish a "learning-by-doing" experience through various accredited short courses and the development of a data base of projects and mentors that participants of the scheme can draw from. PriceWaterhouseCoopers will be one of the strategic partners involved in the development and presentation of the short courses. The Centre's major client groups consist of agribusiness executives responsible for development initiatives and agri-mentors and coaches. The Centre will position Stellenbosch University to engage with the agribusiness environment to develop the required human capacity and knowledge systems to play a leadership role in a competitive, equitable and environmentally sustainable agricultural sector.

6.3 NGOs in Agribusiness Education and Training

Several NGOs have stepped into the realm of agribusiness training by offering adapted training courses. Most of such programmes are donor supported and many target a small, specialised client base. Length, cost and structure of such programmes vary widely by country, funding source and macroeconomic context. Below are a few examples of such initiatives.

African Organic Farming Foundation has developed an agribusiness model for Southern Africa in the field of organic agriculture. The foundation's Marketing and Agro-Business Development Program is a market-led, trade capacity-building partnership that facilitates the inclusion of the resource-poor in organic production and trade by linking small farmers with markets to improve nutrition, food security, incomes and community decision making (African Organic Farming Foundation).

The Swedish Cooperative Centre is another NGO working directly with farmers and contributing to capacity building in agribusiness education and training within Sub-Saharan Africa. Its initiatives include the Farmer Empowerment Through Agribusiness Development (FETAD) project in Uganda as well as the Swedish Co-operative Centre and Vi Agroforestry project in Rwanda. The project has been working within the field of agroforestry and agribusiness development to address environmental problems and poverty alleviation as its contribution to improved livelihood among targeted communities. The project promotes agribusiness development through the concept of farming as a business. It involves training farmers in how to convert from subsistence farming to a commercialised form of agricultural production, which entails aspects of enterprise selection, proper record keeping, utilisation of projected income statements and marketing. This approach to farming is seen as a means of increasing household incomes for improved farmers' livelihoods. The project also focuses on organising farmers into democratic, member-based organisations in a bid to consolidate quantity and quality of farmers' produce to meet market standards and help farmers realize substantial profits as a result of improved bargaining power (Swedish Cooperative Centre).

In Ghana, the Trade and Investment Programme for Competitive Export Economy is a CARE project that targets smallholder farmers that have already begun to integrate into commercial marketing chains. The project recognises the importance of strengthening the role of women as owners of SMEs, as smallholder farmers and as productive workers in processing and marketing activities considering that about 60 percent of Ghanaian farmers are women. The challenge however lies in finding commercially oriented women farmers

and including them in the target groups. A critical aspect of activities within the project is aligning large and medium-sized agricultural enterprises to overseas markets and linking smallholders to modern supply chains for agro-processing and export (CARE). Through this project, various short courses are offered for free to farmers and agribusinesses based on identified need.

Market Matters Inc. has offers all-encompassing agribusiness management training workshops covering the topics of agribusiness marketing, strategy, financial analysis, supply-chain management and human resource management. The goal of its “Making Markets Matter” workshop series is to help African agribusiness entrepreneurs recognize market demand and meet their customers’ needs, in the process offering employment and promoting economic opportunities in their communities. Besides providing executive management training, the “Making Markets Matter” program is a platform for building business-to-business relationships. The program includes several special luncheons and evening programmes that feature speakers from large agribusinesses, multinational corporations, and financial institutions with an active agribusiness program.

7. Recommendations for improving Africa’s Agribusiness Education and Training

The paper set out to analyse the current state of capacity building in agribusiness education and training for Sub-Saharan Africa. Much of this analysis has been presented in the preceding section. In this concluding section, we synthesise the above findings into key recommendations for improving AET for Africa’s Agribusiness.

7.1 Paradigm shift from agriculture to agribusiness

Perhaps the hardest aspect to change about training and education for agribusiness is the overall paradigm that governs our approach to the subject. Traditional AET has existed and has been institutionalised over many decades. It is mostly these same institutions that are now taking on the challenge of building capacity for the agribusiness sector. This makes sense from an efficiency point of view as it maximises economies of scope and integrates agribusinesses to traditional fields of AET. However, this approach forces the subject matter of agribusiness to fit into the rather static infrastructure and ideologies which were developed for traditional agricultural fields – mostly farming. In so doing, we miss the opportunity to challenge existing paradigms for AET that have not kept pace with recent dynamics in the macro-environment. Figure 4 illustrates some key areas for which a new paradigm is need in shifting from traditional AET to an Agribusiness centred education and training. First, the approach needs to shift from producing disciplinarians with a narrow but in-depth knowledge base to producing well rounded professionals with requisite skills to get the job done. Secondly, graduates of AET need to be more competitive and employable not just in government departments but within the general market that now includes private agribusiness. Likewise, the production orientation that seems to govern traditional orientation needs to be replaced by a market oriented approach that prioritises meeting consumers’ needs. Unfortunately, most institutions are designed to defend the *status quo* and hence change might take very long to develop and implement. An interim strategy might be to give some degree of autonomy or flexibility to agribusiness education and training programs.

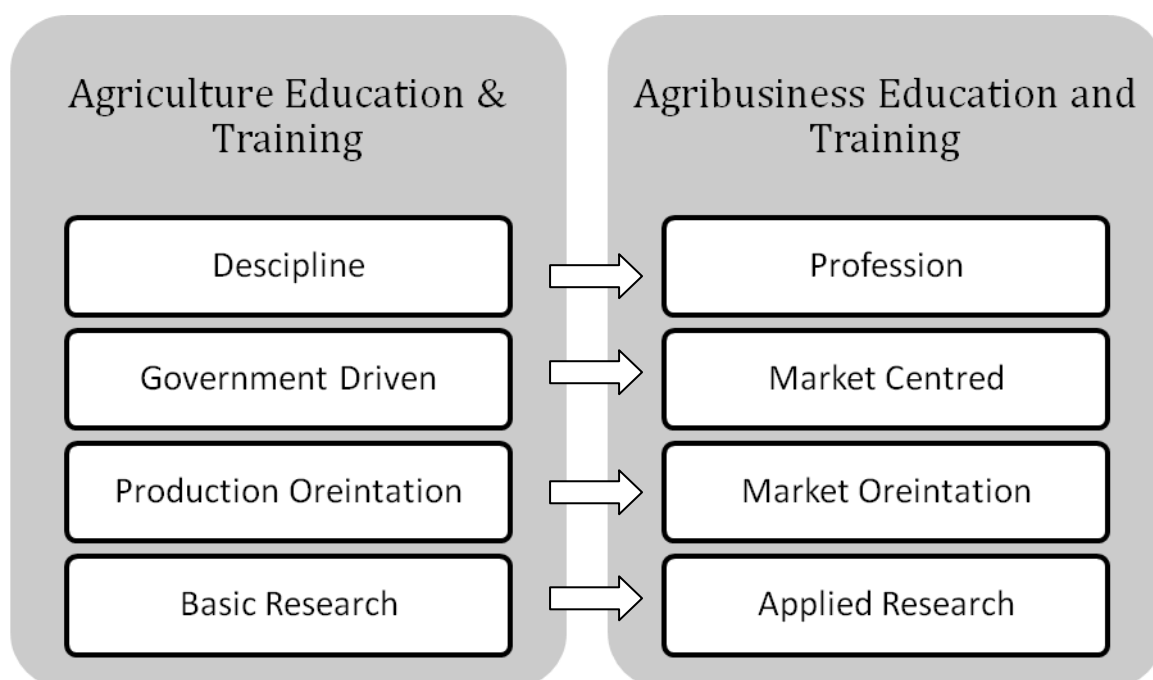


Figure 4 Paradigm shift from Agriculture to Agribusiness Education and Training

7.2 Learn from other developed countries and adapt for Africa

When it comes to developing programs and institutions for capacity building in agribusiness education and training, there is no need to re-invent the wheel. As has already been highlighted, the contribution of agribusiness to gross domestic product increases as a country develops. This is in contrast to the contribution of agriculture or farming which declines with a country's growth. Consequently, agribusiness now plays a larger role in developed countries than traditional agriculture and this has been the case for several decades. Over the years, agribusiness education and training has evolved to meet the needs of the industries in developed countries. African countries can learn a lot from industrialised nations especially in Europe and North America on best practises for designing and implementing successful agribusiness capacity building initiatives in both public and private spheres. That said, it is important to note that Africa faces unique challenges and opportunities such as those discussed in section 3. Hence, the best practises from the West need to be adapted for the local context both at the continent and national levels.

7.3 Gender inclusivity

A key problem that seems to bedevil overall AET is gender inclusivity. There are simply not enough women included in the different layers of agribusiness education and training. In Africa, this poses a special challenge because women play a larger role in agriculture than men especially at smallholder level. If the agribusiness sector is to integrate well with the smallholder farming community, it needs to include more women and be cognisant of gender issues. Currently, agribusiness management is not an attractive option for female students enrolling at academic institutions. There is a significantly smaller proportion of women in agribusiness and agricultural economics departments compared to other fields and disciplines. Conscious efforts need to be taken in both academic and executive training to recruit and retain female students and instructors.

7.4 Balance quantity with quality

The first wave of response by academic institutions and NGOs to the growing need for skills and expertise in agribusiness management in Africa has been to produce as many graduates as possible. While this push for numbers is to be commended, it now needs to be balanced or complimented by a push for quality. Quality control measures need to be put in place to ensure the highest standards of graduates given available resources. Academic institutions will need to move beyond changing department names and/or adding a couple of agribusiness management courses to developing comprehensive programs that meet and keep up with industry needs. Similarly, NGOs and private companies that offer executive training for agribusiness need to move towards accreditation to ensure sufficient rigour and enforceable quality standards. Funding institutions that are investing in agribusiness training will need to signal measures of quality in evaluating outcomes and impacts.

7.5 Engage private sector

The private sector needs to be engaged in agribusiness education and training. First, capacity building institutions should continuously consult with private agribusiness to assess their skills requirement both in number and areas of expertise. Industry representative should be consulted in the curriculum design process to ensure that their needs are met. Furthermore, the private sector should be engaged in the education and training process itself. This can be achieved through the contribution of case studies, guest presentations, student internships and even financial support in AET.

7.6 Use and develop local case studies

Appreciation of case studies as a teaching and research tool has grown remarkably in recent years because of its applicability to real-life, contemporary, human situations and its public accessibility through written reports. Given the highly dynamic nature of agribusiness in Africa, case studies can ensure that education and training is delivered within a contemporary context. Yet there are very few documented case studies of African agribusinesses. Some investments will have to be made in researching and documenting agribusiness case studies that highlight contemporary management issues. Further investments might be needed to training instructors on the use of case studies as a teaching tool.

7.7 Adapt to changing environment

Last and perhaps most importantly, the macro and micro environments facing agribusinesses in Africa will continue to change. The above recommendations, while relevant today, might not be applicable to tomorrow's challenges of agribusiness education and training. New issues such as the global financial crisis, the rise of genetically modified goods, environmental challenges, technological advancements and rapid urbanisation are likely to present new challenges that are impossible to anticipate. The implication for AET is that institutions need to continuously re-invent themselves to stay at pace with contemporary challenges and perhaps anticipate future ones. Better yet, AET needs to produce graduates who are able to meet future challenges without the need to further training – the adaptive graduate.

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