

# Prospects of Distance Education for Agricultural Training, Education and Agri-business in Cameroon\*

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## Abstract

This Note attempts a very brief presentation of the potential of Cameroon's agricultural sector and presents a landscape of the capacity building activities of the University of Dschang in residential and distance learning in agricultural education and training at the tertiary level. The note also attempts to highlight achievements and prospects for further development of distance learning in agriculture using Open and Distance Learning ODL as an alternative and complementary mode of education delivery against a backdrop of global change, and emerging challenges in science and technology. The role that CGIAR can play in this initiative is discussed with a focus on how the concept of the Global Open Food and Agricultural University program Initiative can strengthen on-going efforts involving national and international partners.

### 1. Introduction

Africa offers many opportunities for the economic and human development of the continent— based on natural resources, enormous economic potential, the rich and diverse geography of the continent. Perhaps, the richest resource available on the continent for African development is human resources. But these do not seem to benefit from effective, efficient and sustained investments and development owing principally to:

- A long history of a colonial past that does not seem to liberate minds on the continent;
- Limited investments on human resources due to competitive needs and demands in other sectors such as infrastructure, health and education;
- Incoherent and unsustainable development strategies;
- Poor management of available resources (physical, fiscal and human);
- Limited access to science and technology compounded by misplaced development priorities;
- Weak institutions and lack of a strong culture of democracy and governance;
- A weak and disorganized civil society; and
- Chronic continent-wide poverty perpetuated the conspiracy of the above factors that keep “poor people poor” (Nji, 1981; 1992; 2004b).

As an African country, Cameroon is not spared of these negative attributes. Yet, time is a critical variable on the development equation: Change does not wait for those who are reluctant to change old habits, and the development clock will keep ticking even for countries that are asleep. The ability to move with change, therefore, is a critical requirement for African countries to move out of the doldrums of poverty in the 21st Century. And this movement with, and for change must be focused on poverty reduction through tried, proven and effective solutions (Nji, 2004b).

In Cameroon, effective and sustainable strategies for poverty reduction must begin with the recognition that agriculture remains the hope of Cameroon's industrial future for still many decades to come. Therefore, investment in agricultural education and training and

the adoption of innovative and effective approaches that benefit the majority of the populations should be encouraged and aggressively promoted.

Central to this vision is education. In my study of the poverty situation in Cameroon, I have recommended that for Cameroon to get out of poverty, the government must concentrate investments efforts on four key sectors: education, health, infrastructure and governance (Nji, 1994; 2004b). Alternative strategies and models for the development of a dynamic, viable and sustainable system in agriculture and rural development are urgently needed in Cameroon, as in other African countries.

## **2. Agricultural Training in Cameroon: A brief overview**

Cameroon's agricultural and rural development as well as education policies are embarrassingly segmented, some times incongruent and at best not as effective as expected. This is because these policies are lodged in different ministries. The following Ministries are directly involved in agriculture and rural development in Cameroon:

- Ministry of Agriculture and Rural Development
- Ministry of Livestock and Animal Industries
- Ministry of Forestry and Wildlife
- Ministry of Environment and Protection of Nature

Other Ministerial Departments that affect the lives of rural dwellers and cultivators include: Public Works, Transport, Education, Health, Planning and Development etc.

The dilemma of agricultural education and training is further made worse by the segmentation of educational policy in Cameroon in four different Ministries:

- Basic Education for Nursery and Primary Education
- Secondary Education for Technical and non-vocational education
- Labour and Professional Training for Vocational Education
- Higher Education for all tertiary education

All the above Ministries are responsible for developing sector policies in accordance with their mandates. Furthermore, agricultural education in Cameroon is further segmented into training institutions that fall under the direct authority of the respective technical Ministries and tertiary level agricultural education which falls under the aegis of the Ministry of Higher Education;

Only one organisation (Inades-FORMATION), an international NGO operating in several African countries, provides non-formal distance education in agriculture to farmers in Cameroon. Residential agricultural training and education is offered through the Ministry of Agriculture and Rural Development, the Ministry of Livestock and Animal Industries and the Ministry of Forestry and Wildlife. The University of Dschang is the only higher education institution with a mandate to train agricultural scientists and engineers in the following specializations: Crop production, Animal Production, Agricultural Economics, Rural Sociology and Agricultural Extension, Forestry, and Agricultural Engineering. The Corp Production Specialty offer specializations in Soil Science and Crop Protection.

Agricultural education by distance is an approved academic programme at the University of Dschang at the Associate Degree and BSc levels. The programme covers three options: Crop production, Animal Production and Agricultural Management and consists of 20 courses available in both English and French, essentially in paper mode.

### **3. ICT policies and strategies in Cameroon**

While other countries on the African continent are gravitating to adopt S&T, particularly ICTs, Cameroon is very slow to innovate. Institutional inertia, and the absence of a comprehensive development strategy constrain Cameroon's development future (Nji, 2004b). The Blue print for a National Computer Master Plan is still being developed at a time when only an estimated 1% of the Cameroon population has internet connectivity. At the same time, less than 6% of the rural populations and less than 20% of the national population are connected to electricity. The Cameroon Minister of State for Posts and Telecommunications recognizes this saga and promises to "face the challenge of adoption" of ICTs (La Nouvelle Expression, 2007:9).

### **4. The role of Energy**

Energy is important for national development, including the development of distance education. Cameroon suffers from an energy crisis resulting from a combination of factors:

- Rapid population growth not matched by increased investments on energy;
- Prolonged culture of State monopoly of the energy sector;
- Low investments and little innovativeness in the energy sector. As a matter of fact, no new investments have been made in the energy sector in Cameroon since 1990 while at the same time the production efficiency of electricity in Cameroon has dropped by 40% and demand up by 6% (Foute, 2007).
- Lack of diversity in the sources of energy characterized by concentration on hydro power;
- Inefficient management of the energy sector characterized by low quality of personnel, equipment and financial resources.

### **5. The Structure of agricultural education in Cameroon**

The practice of agricultural education in the educational system at the various levels of education is as follows:

**Basic education.** Agriculture is not a compulsory subject on the syllabus although some schools have school farms and gardens;

**Secondary, Vocational and Technical Education.** Agriculture is not taught in secondary schools as a discipline. However, a few private schools mostly run by religious bodies teach agriculture and prepare students for public/certificate examinations in agriculture. None of the training is offered by distance education.

**Open Schooling in agriculture.** INADES-Formation (IF), an international NGO, is the only institution that has offered opportunities in open schooling to agricultural learners by distance using the old-time mode of correspondence courses and radio. IF runs correspondence courses for farmers and rural dwellers on a number of agricultural topics on a stand-alone basis. Learners who successfully complete a number of courses are awarded a certificate. There are no entry requirements and no datelines. Courses are distributed in print format to farmers in accessible areas and supplemented with radio broadcasts twice a week over regional radio networks.

**Post-secondary agricultural education under the auspices of technical ministries or government departments**

Formal agricultural education recognized and financed by the government is offered in schools of agriculture under the supervision of the Minister of Agriculture and Rural Development and Schools of Veterinary Science under the Minister of Livestock and Animal Industries (Figure 1).



**Figure 1.** Location of agricultural and livestock training institutions in Cameroon

- ▲ State Universities
- National Centre for Animal Husbandry and Veterinary Training (CNFZV)
- ★ School of Forestry
- Regional College of Agriculture (RCA)
- ⊙ Technical College of Agriculture (TCA)

**Schools of agriculture.** Four Colleges of Agriculture (Bambili in the North West Province, Ebolowa in the South Province, Maroua in the Far North Province and Bertoua in the East Province) offer general agriculture training for secondary school leavers. Admissions to these schools are by competitive entrance examination.

**Schools of veterinary science.** The Ministry of Livestock and Animal Industries runs and controls three schools (one in Jakiri, North-West Province, a second in Fouban, West Province and the third in Maroua, Far North Province) for the training of veterinary nurses and livestock technicians. The Fouban Centre puts great emphasis on the training of fisheries technicians. Approximately 4000 candidates write the entrance examinations each year but only 1000 are admitted in the various schools.

**Wildlife and forestry schools.** The Ministry of Wildlife and Forestry runs and operates two schools; one in Maroua, (Far North) and the other in Mbalmayo (Centre Province). The school of wildlife in Maroua conducts training in various areas of nature and wildlife conservation while the school in Mbalmayo trains forest rangers. The total residential capacity in both schools is approximately 500. All instruction in both institutions is through the residential face-to-face mode.

Admission requirements are the GCE OL and Advanced Levels, depending on the desired level of study. Yet, quality assurance remains an important problem;

**Higher education institutions.** Of Cameroon's six public universities, the University of Dschang is the only institution of higher learning with a clear mandate for higher education and training in agriculture in Cameroon. However, the University of Ngaoundere is also mandated by official government policy (MINESUP, 1993) to offer training in the processing of animal by products (milk, butter, cheese and yogurt). Ngaoundere is also venturing into beer and wine research purely for educational purposes. All of the training at the University of Ngaoundere is by residential mode

## **6. Distance education in higher education**

The University of Dschang (UD) "is a pioneer and remains Cameroon's best institution of higher learning in agricultural education and training ...committed to excellence in agricultural teaching, research and outreach" (University of Dschang, 1998:1)

Distance education at the University of Dschang started in 1991, thanks to a One Million dollar CIDA grant to establish a diploma in tropical agriculture programme in the Faculty of Agriculture (University of Dschang, 1998). This initiative evolved from a project to a programme in the Faculty of Agriculture and institutionalized as a Programme consisting of 20 courses in both English and French, leading to diploma awards in Crop Production, Animal Production and Agricultural Management (Nji, 1999a & b).

## **7. How GO-FAU Program can contribute**

The Global Food and Agricultural University program can contribute to consolidate the achievements of the programme, improve on delivery methods using advanced technologies, and expand the ODL to the other five faculties at the University: Law and Political Science, Arts and Humanities, Sciences, Economics and Management, Institute of Technology. Agri-business programmes in addition to others at the Bachelors and Master's level can be developed for distance learners.

## **8. Areas of possible involvement**

- Needs Assessment and establishment of relevance for programmes
- Development of Distance Education Policy and institutions
- Training in Course development, delivery and programme management
- Quality assurance, student assessment and accreditation
- Marketing, student support, record management and sustainability
- Development, use and application of appropriate educational technologies in delivery;
- Translation in both English and French to serve the CEMAC sub-region
- Establishment of Accreditation and Qualification Frameworks

## **9. Conclusion**

The development of a distance education culture takes time. Course development involves approximately 39 steps over a minimum of two years from the idea level to delivery to the learner (Gibson, 1994). In agriculture and other technical disciplines, special attention has to be paid to practical training, hands-on experience and learning, if the programmes are to be of high quality, relevant, accessible, and affordable by the poor (Njib, 2004; Sanyal, 1999; Green and Harvey, 1993 as cited in Deshpande and Magridge, 1994). Furthermore, distance education courses must promote sustained partnership and encourage dialogue with stakeholders including the learners, teachers, employers who have a final say on the quality of the products (Tait, 1997).

Against this backdrop, GO-FAU program and the Bill and Melinda Gates Foundation will do the developing countries a world of lasting service if they pull synergies to develop distance learning programmes in agriculture and rural development as well as in life skills. The ultimate goal of these actions is to face eight key current challenges to higher education in developing countries today: the demand and access, relevance, equity and equality, quality, diversity, management, funding and collaboration (World Bank, 2002).

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