Contribution of the Collaborative Master of Science in Agricultural and Applied Economics (CMAAE-AERC) Program in Building Capacity for Land Policy Analysis and Administration

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1. Background

The CMAAE is a home-grown program designed for relevant skill development and application to contribute towards achieving the Millennium Development Goals as well as addressing the current and emerging problems in Africa. The overall goal of the program is to strengthen capacity for agricultural policy analysis and research through training to facilitate evidence based policy formulation and implementation in the Eastern, Central and Southern Africa region to begin with. Improved policies are required in the region to achieve efficient, productive, equitable and sustainable use of the human and natural resource endowment. Land is the dominant factor of production, providing direct source of livelihood for over 80 per cent of the population of the continent. Efficient and effective land policies and administration is therefore critical in achieving overall sustainable growth and development in the region.

The World Development Report (World Bank 2008) re-emphasized the critical importance of Agricultural Productivity and Competitiveness in achieving the first MDG. Paradoxically, Africa is the only region where agricultural productivity has consistently been declining, poverty depth and breadth increasing and poverty traps rampant over the last four decades. This sorry state of affairs is currently being exacerbated by the recurrent Global Financial and Food crisis whose impact is likely to be felt more in Africa than any other part of the world. In spite of all these, there still is a growing appreciation among African leaders of the relationship between policy and agricultural production, with agricultural growth noted as being fundamental to overall economic growth, development and poverty reduction.

Africa’s big agenda, as indicated by the New Partnership for African Development (NEPAD) is to achieve an economic growth rate of at least 6% per annum- this will necessitate expanding domestic markets and improving access to world markets. However, achieving the desired growth is far from reality if there is no rapid agricultural and income growth and increased competitiveness. For this to be realized, the key challenges likely to hamper agricultural growth and competitiveness needs to be addressed. These challenges include among other; infrastructural problems, poor incentive structures, inappropriate technologies, inefficient input and product markets, weak institutions, lack of favorable credit markets, production uncertainties/risks, increasing population pressures and deteriorating soil conditions/environmental conditions among others. Understanding the manner of access, use, management and control of land is crucial in addressing the challenges.

To address these challenges Africa needs to ensure that right policies and institutions are put in place to facilitate and improve commercialization, expand markets and trade, and income multipliers from farm-non-farm linkages. Increasing agricultural production will need to be done without detrimental environmental consequences and without compromising on food safety. Against this background, the CMAAE program is well placed to provide practical response to Africa’s big agenda. The CMAAE is a network of
16 university departments. It is Home-Grown, locally driven and designed for relevant knowledge and skill development and applications. The program is a product of a detailed consultative/collaborating planning exercise led and driven by Africans themselves. The program’s overall objectives is to strengthen the region’s capacity to generate skills and knowledge essential for the transformation of agriculture to achieve higher productivity and competitiveness, and to develop a training program that conforms to international “best practices”, and which also adapts clients to the region’s specific features.

With its primary focus being building capacity to build capacity; CMAAE contributes to building capacity for effective and relevant policy research, analysis and formulation; promotes networking, and especially inter country case studies in learning successes and failures to inform relevant policy; through its network, it’s able to contextualize the conditions for success for the desired unique African Green Revolution; and finally it contributes appropriately trained professionals to work as change agents in the region.

The CMAAE network and the economy

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2 The CMAAE Network covers Eastern, Central and Southern African region notably 12 countries of Botswana, Ethiopia, Kenya, Malawi, Mozambique, Rwanda, South Africa, Swaziland, Tanzania, Uganda, Zambia and Zimbabwe.
2. Channels of Program Contribution

The network’s contribution is through four key activities:
- Masters training in Agricultural and Applied Economics;
- Research;
- Outreach; and
- Building capacity of network departments to offer relevant and quality training

2.1. Masters Training

Program offers a range of demand driven elective subjects in four fields: Agriculture and Rural Development; Agricultural Policy and Trade; Agribusiness Management; and Environment and Natural Resource Management. All the CMAAE students take a course in Institutional and Behavioural Economics. The program also benefits from established networks – The World Bank Institute, AGROCURI, ASARECA among others that incorporates knowledge generated from research into curricula, which are regularly reviewed.

Structure of the MSc Training

The program of study for the MSc involves three semesters of courses plus a thesis, all to be completed over five semesters lasting 24 months. Eligible students are those with undergraduate degree in any field. However before enrolment for the core competencies in Agricultural and Applied Economics program those without Economics background must pass an entry test after bridging courses in Economics. Students complete their first two semesters at one of the current six accredited university departments, taking eight core courses designed to develop students’ competency in core agricultural economics concepts and methods of analysis. All students complete the third semester at the Shared Facility for Specialization and Electives (SFSE), currently hosted by the University of Pretoria (UP). Following completion of the SFSE semester, students return to the accredited universities to complete their theses.

The graduates then resume their jobs for those from mid-career or look for employment in the private or public sector or pursue higher degrees in a relevant field of specialization.
**Agricultural Policy and Trade**
This field of specialization offers students rigorous training in policy research and analysis. Students are exposed to tools and methods of policy research and impact assessment, in addition to case studies developed from local experiences. Due to its up to date curriculum, students are exposed to the effects of various policies, including price, environment, food safety, technology, among others, and their impacts at the Macro, Meso, and Micro levels.

**Agribusiness**
This field emphasizes linkage of farmers to markets and the role of agro dealers in the entire commodity value chain. Focus is on the Business Development Approach to farming given the current emphasis on commercializing agriculture, and the existing opportunities in value addition in improving livelihoods of farm households. Microfinance is a popular elective in this field.

**Agriculture and Rural development**
The focus of this field of study is on effective rural planning to stimulate development, and especially the role of institutions and women in development of the rural areas. It emphasizes the role of agriculture and the existing challenges and opportunities in improving the livelihoods of the rural population in an environmentally sustainable way.

**Environment and Natural Resource Management**
This field of specialization addresses one of the vital concerns that rural planning should reconcile: Increasing agricultural productivity in an environmentally sustainable manner,
especially with respect to Biodiversity concerns. Students acquire environmental valuation skills, effects and mitigation measures for Climate Change, among others.

Institutional and Behavioral Economics
This is an innovative course that is designed to enable students to better adapt more conventional analysis to the political and economic realities of the region and to be able to understand and contribute in addressing the institutional and policy failures in the countries in the region. The evolving dramatic rise of cross border transnational corporation driven and in some cases foreign government driven large scale land deals and the effects on growth and development of the host countries are explored.

2.2 Research Activities
Program currently engages in research undertaken by students conducting theses research and faculty members conducting research covering topical issues of interest. Therefore, the program provides opportunity to collect micro data and thus contributes to relevant and efficient policy formulation to achieve higher Agricultural Productivity, Marketing and sustainable livelihoods. Students research in particular have been found useful by policy makers in the region.

2.4 Outreach Activities
The network further aims to contribute to evidence based policy formulation by disseminating research findings from its activities to policy makers in the region. The CMAAE through established networks with international research bodies (AAAE, IAAE), regional trading blocs and development initiatives (COMESA, NEPAD), and (AGROCURI), among others in addition aims to contribute to the body of knowledge and influence relevant policy formulation.

3. The Land Issues Addressed in the CMAAE Curriculum
The general principles of good or best available practices in land tenure as understood today are incorporated in the curriculum of the program. Use is made of case studies spanning across the region to illustrate lessons learnt from both success stories and failures of policies and land administration. The cases include the Land reforms in Kenya, Zimbabwe and Uganda and South Africa. These are also compared with the other experiences in the other developing countries of the world, although the contexts in these other countries are different from Africa.

3.1 Land Tenure Arrangements and effects on Productivity and Sustainability
The manner of access, use, control and management of land are known to influence investment on land and productivity and environmental sustainability. Whether land is owned communally, individually (privately) or by the public will influence the incentives to invest on it and lessons are drawn from each of the types of tenure arrangement. Good
practice for each tenure type is taken to refer to the extent to which alleviation of rural poverty and inequality is achieved, the promotion of sustainable farming and livestock rearing and the encouragement of greater efficiency in agricultural production and distribution in the value chain. Issues of share cropping arrangements and property rights are covered.

3.2 The rise in Foreign Direct Investments on land for food and cash crop production and impacts on environment and Food Security

Issues in agricultural and applied economics is a course that seeks to create full awareness of current issues and challenges in the field of agricultural and applied economics, and more so in relation to agriculture and rural development. Among the topical issues this course seeks to address is the idea of foreign investment in agricultural land. Private investors and governments have recently stepped up foreign investment in farmland in the form of purchases or long-term lease of large tracks of arable land, notably in Africa. This course tries to analyze the implications of this trend for sustainable development. Further, the New Institutional Economics course philosophy can be used to explain the recent surge of interest in foreign investment in agricultural land.

The driving force for the rise of the foreign investments on land appears largely to achieve food security for the foreign country with some insensitivity about the long term effects on the host country environment and food security situation due to information asymmetry during negotiations. The technical skills of the host country government’s negotiators need to be enhanced to provide a level playing ground for assessing the potential costs and benefits of the land deals.

3.3 Land Use Patterns and effects on Environment and Natural Resource Base

Assessments for best land use practices under particular environments are covered under this theme.

3.4 Scale and size issues in land management and sustainable development

The issue of survival of smallholder farms in the face of globalization is addressed. Identification of policies which create incentives for value addition and linking farmers to input and output markets to raise farm incomes are at the core of this issue. This includes investment in public goods like infrastructure and research and public extension services. Ways of providing affordable and accessible credit is also covered.

3.5 Population growth, Intensification of production and environmental concerns

Transformation of agriculture from subsistence to commercialized farming holds the key to achieving desired development. New technologies and improved markets and policies have to convert subsistence farming into market-oriented, income-generating ventures if
food security and poverty alleviation are to be tackled at the desired pace. Enhanced and expanded human resource capacity is greatly needed to drive the transformation. In this module, issues of fragmentation and miniaturization of land are covered as well. Resource use conflicts arising out of population pressure on land and other resources such as water and forestry and avenues of conflict management and resolution are explored.

3.6 Links between Poverty Traps, inequality and land concentration

The poor get trapped in poverty due to lack of access to productive resources, including arable land. This is brought about by concentrating land resources in a few privileged groups or individuals in the population. Policies therefore are needed to reduce inequality of access in land. Some countries attempt to have minimum and maximum size of landholdings (e.g. Kenya is trying to fix this in the emerging constitution)

3.7 Contract Farming and impacts on smallholder agriculture

This arrangement promotes commercialization of agriculture. Through the arrangements possibilities of maximizing the available skills, knowhow and production methods can be achieved. Access to credit inputs and markets by smallholders are greatly enhanced.

3.7 Public Private Partnership in Land Utilization and Environmental Management

Sharing costs of investment in infrastructure development for effective land utilization is facilitated through public private partnership arrangements. Each party uses the comparative advantage to enhance the overall productivity of the land. Other areas are in the use of land for housing forestry, wildlife management avoiding human-wildlife conflict to achieve sustainable agricultural development and well being for the affected population.

3.8 The Conditions for evolution of effective Land Markets

The conversion of community land to freehold through surveying, registration and titling enables land consolidation and creation of opportunities for land market development e.g. in Kenya. This also allows for the establishment of good land succession practices, through legislation, thereby minimizing the tendency to discriminate on the basis of gender or ethnicity. It creates incentives for investment on land use practices, including conservation. Access to credit is also facilitated through the use of land title deeds as collateral, once the other input and output markets are functional.
3.9 Land Reforms for sustainable development.

It is critical to ensure that all arable land is in active production and that it is available to farmers in appropriate sizes to avoid degradation of land. There is need to arrange for restrictions on the size of individual farms or parcels of land in an attempt to stop land concentration as well as ensuring that farmers are encouraged to use all land at their disposal well. Access to complementary input markets and output markets is essential in this regard. Similarly there is need to restrict the use of land in an attempt to delay, if not stop the conversion of land to non-agricultural uses, particularly in peri-urban areas (e.g. coffee plantations to urban housing in Kenya). For leased land there should be some of control of rental levels or share cropping arrangements to ensure fair rents, reflecting the productivity or earning capacity of the land. Very often, there is need to develop fiscal and financial measures to encourage some farming practices (such as farming rather than land accumulation) and discourage others (such as leaving land idle).

4. Research Issues addressed so far

In the first phase of the CMAAE Program, research has focused on students theses guided by faculty of the Network Departments with support in supervision by others with interest in the topics once the respective University senates have approved. The table below presents a sample of theses on land issues already completed. The Program welcomes ideas on topics amenable for urgent attention in research to help in evidence based land policy formulation, implementation and administration.
Students Theses covering land Poverty and Environment

<table>
<thead>
<tr>
<th>Name of Student</th>
<th>Nationality</th>
<th>Proposal Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Millicent Olunga</td>
<td>Kenya</td>
<td>An assessment of factors affecting sustainable forest management in Lower Tana River, Kenya</td>
</tr>
<tr>
<td>3 Mulenga Brian Pingulani</td>
<td>Zambia</td>
<td>Contribution of Forest Products to Household Welfare Around National Parks in Zambia: A Case Study of South Luangwa Game Management Area</td>
</tr>
<tr>
<td>4 Kibirige Douglas</td>
<td>Uganda</td>
<td>Land Ownership Security and Farm Household Productivity in Selected Districts of Central Uganda</td>
</tr>
<tr>
<td>5 Karangwa Mathias</td>
<td>Uganda</td>
<td>Land fragmentation and technical efficiency in southern Rwanda</td>
</tr>
<tr>
<td>6 Kariuki Daniel Kagwe</td>
<td>Kenya</td>
<td>Analysis of the effect of land tenure on technical efficiency in smallholder crop production in Kenya</td>
</tr>
<tr>
<td>7 Artwell Gonese</td>
<td>Zimbabwe</td>
<td>Economic Impact of Global Climate Change on Southern Africa Agricultural Systems: A Pooled Ricardian Approach</td>
</tr>
<tr>
<td>8 Sikei, Geophrey Omondi</td>
<td>Kenya</td>
<td>The Effect of Wood Fuel Scarcity on On-Farm Labour Allocation. The case of rural households adjacent to Kakamega forest, Kenya.</td>
</tr>
<tr>
<td>9 Moses H Lubinga</td>
<td>Uganda</td>
<td>Policy Options in Conservation of Wetlands: A case of Pallisa District, Uganda</td>
</tr>
<tr>
<td>10 Isoto Rosemary Emegu</td>
<td>Uganda</td>
<td><em>The Impact of an Environmental Disamenity on Value of Land in Central Uganda</em></td>
</tr>
<tr>
<td>11 Alobo Sarah</td>
<td>Uganda</td>
<td>Land tenure systems and the effects on the value of agricultural land</td>
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5. Emerging issues on Land Policy and Administration.

The CMAAE Program has embarked on curriculum review after 3 years of delivering the curriculum developed from inception in 2004. We invite comments on the emerging issues that can be incorporated in the curriculum with respect to land policy and administration in Africa.