# STATUS OF AGRICULTURAL ECONOMICS IN SELECTED COUNTRIES IN EASTERN AND SOUTHERN AFRICA

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# PREFACE

With more than two-thirds of the population living in rural areas and dependent (directly or indirectly) on agricultural activities for employment and incomes, agricultural growth and development are essential for the reduction of poverty and hunger in Sub-Saharan Africa. Yet, agriculture's potential has not been fully tapped. The need for improved capacity to contribute to more effective policies and policymaking is more pronounced than ever before.

Concerned about the continued supply of the needed capacity, the International Food Policy Research Institute, in collaboration with the Eastern and Central African Program for Agricultural Policy Analysis (ECAPAPA) and the African Economic Research Consortium (AERC) and with support from the Rockefeller Foundation, initiated a review of the status of agricultural economics in the Eastern and Southern Africa region.

The study, undertaken by two eminent economists, confirmed that the gap between the demand and supply of agricultural economists in the region is widening. There is an urgent need to strengthen and expand training in agricultural economics to meet the unsaturated demand. To do so, training institutions in the region will have to diversify the content and method of delivery of their training programs to remain relevant to current and future challenges and to cater to the diverse needs in the public sector, private sector, civil society, and research institutions. Different modalities for improving agricultural economics training in the region are proposed.

This report was extensively discussed at a stakeholder workshop on October 9–10, 2001, in Nairobi. While participants agreed that many recommendations could be implemented in the different and individual capacities, they noted a need for a common and institutionalized strategy for strengthening the capacity of agricultural economics in Eastern and Southern/Central Africa. It is our hope that this study will contribute to that effort and thereby to reducing poverty and food insecurity in the region.

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Head, 2020 Vision Initiative

Fred Opio
Coordinator, 2020 Vision Network for East Africa

# CHAPTER 1 — INTRODUCTION

## 1.1 BACKGROUND

In general, the literature concludes that financial (private) and social returns to education are lower in high-income countries than in low-income countries (Beintema et al. 1998; Psacharopoulas 1993 and 1994). In other words, such returns are negatively related to per capita income, although some argue that higher education in Africa has generated a lower social rate of return than that invested in primary and secondary education (Psacharopoulas 1994).[1] Consequently, it is perhaps not surprising that, in Africa between 1960 and 1995, enrolment in higher education (i.e., excluding South Africa) increased at 10 percent per year compared with 8 percent in all other low-income countries and 5 percent in high-income countries (Beintema et al. 1998). Even so, in 1995 Africa still accounted for only 2.4 percent of the world's total enrolment in higher education, and yet Africa constitutes 10 percent of the world's population and 14 percent of the population less than 25-year old.

However, during the last two decades, concerns have increasingly been raised about the status of higher education in Sub-Saharan Africa. Rapidly increasing student populations, deteriorating economies (i.e., declining tax base), structural reform programs, and decreased donor support of higher education, which started in the 1980s and continued throughout the 1990s, has created major challenges for higher education. Beintema et al. (1998) have documented that the student/staff ratio in Africa deteriorated from 12.9 in 1960 to 16.3 in 1995.[2] This is partly a reflection of increasingly large undergraduate classes. In terms of financing, Negrao (1995) estimated that in the early 1990s, the percent of recurrent expenditure that came from national education budgets averaged 85 percent in anglophone countries and 93 percent in francophone countries in Africa. Financial exigencies are demonstrated by World Bank (1994) estimates that real spending per student in Africa declined from an average of $6,300 in 1980 to $1,500 in 1988. Also, Saint (1992) found that for 31 African universities the average number of library books per student decreased from 49 in 1979 to only seven in 1996. This compares with 78 books per student in the United States of America (USA).

In addition, Beintema et al. (1998) have documented that, in Africa, enrolment in postgraduate agricultural-related degrees decreased by 21 percent between the early 1980s and early 1990s and, as a share of all students enrolled in postgraduate degrees, decreased from 7.6 percent to 3.8 percent. The inevitable consequence of a reduction in M.Sc./M.Phil. students together with an increase in undergraduate numbers is a reduction of resources and time available for research. In 1991, only 10

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[1] However, as Oniang and Eicher (1998) observe both Bennell and Appleton (1998) have challenged his findings arguing on the grounds that databases for comparing primary, secondary, and university education are unreliable and suspect, therefore raising doubts about the results of any comparative analysis.

[2] These compare with ratios of 13.2 and 15.2 in other low-income countries for the same years, and with ratios for high-income countries of 12.7 and 13.8.

percent of the public agricultural research and development (R&D) in 21 African countries was done by universities, compared with a 1993 Organization for Economic Cooperation and Development (OECD) average of 43 percent (Pardey et al. 1997 and 1998). In terms of time, estimates of time African university faculty spend on research have varied between 20 percent and 35 percent (Pardey et al. 1998; Michelsen et al. 1997). Reductions in resources (i.e., time and money) inevitably has a negative impact on building up the human capital of university staff, making them potentially less effective in the classroom and reducing their prospects for promotion.

The situation depicted in the preceding paragraph is of particular concern in Sub-Saharan Africa (SSA) given the continuing significance of agriculture, in terms of its contribution to the national incomes and as an employer of people, in most of the SSA economies. Failure to promote the development of agriculture will have a negative impact on the development of the overall economies. A major concern in recent years has been an indication of deterioration in agricultural economics capacity on the continent. Given the obvious potential importance of the agricultural economics discipline in contributing to the identification of problems/constraints in the agricultural sector, and to the design, evaluation, and dissemination/imple-mentation of relevant/appropriate technologies and policies to improve agricultural productivity and welfare in a sustainable manner, deficiencies in the capacity of such a discipline is likely to have an important debilitating impact on the development of the agricultural sector. Our assignment, focusing on countries in the Eastern/Southern African region, is a result of such concerns expressed by four regional and international agencies supporting/operating programs in the region — namely the International Food Policy Research Institute (IFPRI) 2020 Vision Network for Eastern Africa, the East and Central Africa Program for Agricultural Policy Analysis (ECAPAPA), the African Economics Research Consortium (AERC), and the Nairobi office of the Rockefeller Foundation (RF).[3]

## 1.2 PURPOSE/OBJECTIVES

The overall objective of the assignment, which was coordinated by the IFPRI 2020 Vision Network for Eastern Africa, with funding from the RF, was to review the status of agricultural economics in the Network countries — i.e., Ethiopia, Kenya, Malawi, Mozambique, Tanzania, and Uganda, plus another ECAPAPA associated country (i.e., Rwanda), and a country of interest to the RF (i.e., Zimbabwe). At a Steering Group meeting in Nairobi at the beginning of the assignment (May 13), the University of Pretoria (i.e., South Africa) was also added because of its wish/potential to play a regional role in the training of agricultural economists in natural resource/environmental economics. In relation to the status of agricultural economics, the aim was also to evaluate the supply gap relative to the demand for agricultural economics graduates and establish the degree to which capacity in the discipline is weak and how this might be improved. The background to the assignment and the detailed terms of reference (TORs) for it are given in Appendix A. The TORs, together with the chapters/sections in the report, where they are dealt with most explicitly, can be summarized as follows:

[3] Representatives of these four organizations constituted the Steering Group for the assignment.

- Assess the current ability (i.e., quantitative and qualitative) of academic institutions in the region in providing well-trained agricultural economists, particularly at the M.Sc. and Ph.D. levels, and for doing research (Chapters 2, 3, 4, and 5).
- Review the existing M.Sc. and Ph.D. training programs and evaluate their suitability/strengths, weaknesses and indicate the areas that need to be addressed (Sections 4.4 to 4.6 and Chapter 7).[4]
- Evaluate the market for agricultural economists in the region, focusing especially on the supply gap and providing some description on the demand for agricultural economic graduates (Section 4.2 and Chapter 6).
- Suggest and evaluate possible ways to improve agricultural economics training capacity in the region (Chapter 8).

To help in the above exercise we were to review a survey report on the institutional capacity with reference to applied microeconomics in Eastern and Southern Africa, which was undertaken at the behest of the RF in 1998 (Norman 1998). Reference to that report is made at several points in this report.

## 1.3 THE APPROACH USED AND DEPARTMENTS AND INSTITUTIONS VISITED

Visits were made to nine countries in the region during the period May 14 to June 14 after a Steering Group meeting in Nairobi on May 13. Institutions visited in the different countries varied somewhat, although apart from Moi University in Kenya, and a number of universities in South Africa, all the publicly-funded universities offering postgraduate programs in agricultural economics, were visited. Also, because of the close relationship with, and obvious complementarities between agricultural economics and economics, most economic-related departments in the same universities were also visited. In addition, in order to obtain some idea of the market for agricultural economists, some research organizations (i.e., agricultural and policy oriented) were also visited. A list of the agricultural economic and economic-related university departments visited is given in Table 1a and other institutions/organizations visited is given in Table 1b. Information was also collected on a number of other institutions, which were not visited, and are also listed in Tables 1a and 1b.

After the field visits, preliminary findings were presented to an in-house meeting of collaborative partners (i.e., what we have called the Steering Group) on June 16, 2001, in Nairobi. In the light of the comments made at that meeting, a preliminary draft was completed and submitted to the IFPRI 2020 Vision officers for distribution to the Steering Group. A second version of the report was submitted to IFPRI at the end of June, which took into account comments made by 2020 Vision staff and the Steering Group members. This report was circulated to interested parties (i.e., stakeholders) by the Coordinator of the IFPRI 2020 Vision Network for Eastern Africa requesting comments on factual errors. On October

[4] We were not in a position to evaluate the course content in detail or the actual quality of the teaching. Therefore this is dealt with in more general terms such as the appropriateness of the degrees and a somewhat superficial look at the courses offered.

9–10, a Stakeholders meeting was held in Nairobi, at which the findings and proposal were presented. As a result of the discussions at the meeting, the report was finalized and will be used as a basis for drawing up a funding proposal that will be presented at a Stakeholder/Donor meeting to be held at a later date.

The team members responsible for implementing the assignment and producing the report were:

- Dr. Marios Obwona, Senior Research Fellow, Economic Policy Research Center (EPRC), Makerere University, Kampala, Uganda.
- Professor David Norman, Department of Agricultural Economics, Kansas State University, Manhattan, Kansas, USA (Team Leader).

## 1.4 REPORT LAYOUT

Chapter 2 is devoted to the staffing situation in the agricultural economic and economic-related departments that we visited, while in Chapter 3 we look at the work responsibilities of academic staff within universities. In Chapter 4, the degrees offered are described along with numbers of students graduating and the course content of the masters' degrees offered in agricultural economics. Chapter 5 is devoted to examining facilities and support systems in the academic departments, while in Chapter 6 we look at the market for degree holders in agricultural economics. Chapter 7 looks at the linkages agricultural economics departments have with other departments, and institutions/organizations. At the end of each of the Chapters 2 to 7, we give the implications arising out of the material presented in the chapter that need to be taken into account when considering improving the agricultural economics capacity in the region.

Finally in Chapter 8, based on our findings, observations and implications given in earlier chapters, we evaluate four different models for improving the capacity for agricultural economics in the region and conclude the one that has the best potential is the AERC approach with a few relatively minor modifications that combines the best elements of the conventional AERC model with those of the Center of Excellence model.

In addition there are nine appendices. Appendix A gives the detailed terms of reference for our assignment. Appendices B and C give some details about the agricultural economics and economic-related departments that we visited. Appendix D gives some information on the AERC as it stands at the moment, plus a brief overview of the networks operating in the region that relate in one way or another with agricultural economics. Appendix E gives information on examples of institutions that employ agricultural economists, while Appendix F lists the papers consulted in preparing the report. Finally, in

Appendix G, we define the acronyms used in the report,[5] while Appendices I and J give details on our itinerary and the people we saw.

One cautionary note is required. The short time for the mission and the number of places visited precluded us verifying that all the data and information presented in the report are completely accurate. It was surprisingly difficult to access some of the numerical data and therefore they should be treated as indicative rather than absolutely accurate. However, efforts were made to verify the accuracy of the data by circulating copies of an earlier draft of the report to individuals from whom data were collected and by asking for corrections at the October Stakeholder workshop.

Finally in the report, in order to economise on wording, we have usually dropped the term "university" when referring to specific universities.

## 1.5 ACKNOWLEDGMENTS

A mission covering nine different countries in just over five weeks and visits to many universities, departments, and other organizations and institutions, cannot be successfully completed without the cooperation and collaboration of many individuals. Undoubtedly our biggest debt of gratitude must go to Dr. Fred Opio, Coordinator of the IFPRI 2020 Vision Network for Eastern Africa, who initiated the mission, obtained funding for it, and helped facilitate the complex itinerary., His commitment and interest and the support of the other Steering Group members was critically important in undertaking the mission. However, others also deserve special acknowledgement, including the officers and staff of the IFPRI 2020 Vision Network in Washington D.C., Ms. Wanjiku Kiragu, Ms. Mulemia Maina, and other staff at the Nairobi RF, Ms. Caroline Aguti in IFPRI regional office in Kampala, and Ms. Stella Mwabumbe at the Agricultural Policy Research Unit (APRU) office at Bunda College. We are also very grateful to the IFPRI Network Country Coordinators who arranged the details of the itinerary and logistics in the different countries. We also particularly wish to express our appreciation and gratitude to all those we met on our field trips — administrators, including the vice chancellors, deans and directors, heads of department, and staff of universities and other organizations — who took time to answer our endless questions. Finally, we would like to express our gratitude to the RF for giving us the unique opportunity of visiting so many institutions in the region, and very much hope that this report will contribute in a small way to designing and implementing a strategy that will result in improving the agricultural economics capacity in the region. We believe implementing such a strategy could play a vitally important role in improving the welfare of the many people in the region who are dependent on agriculture for their livelihoods.

[5] In the text, however, an attempt has been made to define the acronyms in full the first time they are used.

# CHAPTER 2 — STAFFING

## 2.1 INTRODUCTION

The qualifications and experience of the faculty in the agricultural economics and economic-related departments are obviously important determinants of the potential quality of the training programs and hence the agricultural economics capacity in the region. Therefore, in this chapter, we present data on the numbers and distribution of staff establishments and actual staff in agricultural economics and economic related departments according to rank and sex. This is followed by presentation of data according to the terminal degrees (i.e., B.Sc./B.A., M.Sc./M.A./M.Phil. and Ph.D./D.Phil.) of the academic staff in those universities and their origin. The current and future strength of the departments is influenced by human capital strengthening of the junior faculty through higher degree training, usually acquired via study leave and temporary and later, often permanent loss, usually of more senior staff through taking leave without pay. Thus, sections are devoted to study leave or staff augmentation and staff attrition, usually via leave without pay. Finally, we include some information on the University of Pretoria because of its current strength and its potential role in helping to improve agricultural capacity in the region.

The data in the tables, unless otherwise indicated, refer to the staffing situation, as it existed in May this year. Surprisingly, such data were not always particularly easy to collect and assemble so the figures should be viewed as indicative, rather than necessarily being absolutely accurate.

## 2.2 NUMBERS AND DISTRIBUTION ACCORDING TO RANK AND SEX

Important determinants of the potential quality of the training programs and hence the potential microeconomic capacity in the region are obviously the qualifications and experience of the faculty in the departments of agricultural economics and economics. An approximate idea of the staffing patterns in the different departments visited, as of May this year (i.e., 2001) is presented in Tables 2a and 2b. Additional information pertaining to the following discussion is given in Tables 3a and 3b, and 4a and 4b.

Specific points to note from the tables are the following:

- *Size*. Agricultural economic-related departments tend to be smaller than economic-related departments both in terms of establishment and actual staff. The average size of establishment (i.e., where established posts are available — see discussion below) and actual posts filled for agricultural economic related departments are 17 and 13, while comparative figures for economic-related departments are 30 and 21 (Tables 2a and 2b)
- *Established Posts*. With reference to the established posts, where they exist, there are, as would be expected, a relatively higher number of positions available at the lower ranks. Two points to note with respect to the issue of established posts are:

- **U** There is the possibility of the limited number of established posts at higher ranks potentially blocking promotion of staff if the positions are already filled (e.g., in Kenyan universities). However, in most countries this is no longer viewed as a potential impediment to promotion. For example in Makerere, there is flexibility with reference to establishment. Consequently, a person can be promoted to a higher rank and the position can change to accommodate him/her (e.g., a Senior Lecturer post can in essence be converted to an Associate Professor post). In several countries (e.g., Malawi, Tanzania, and Zimbabwe), a total number of posts are established, including one Professor (i.e., in theory a Head of Department post) and a specific establishment for the whole department is set. There is no breakdown by rank, thus permitting promotion within the limits imposed by the establishment as a whole. A third possibility (e.g., Ethiopia and possibly Rwanda) is where there is no set establishment and individuals can become promoted on merit and, if new positions are required, a request is made to the administration.
- **U** Dar es Salaam expects individuals to be promoted as a result of good performance and to maintain that performance level after promotion. If they do not continue to perform well during a specified period (e.g., usually three years) they can be demoted or even their appointment terminated (i.e., somewhat analogous to a contract appointment). This prevents individuals "resting on their laurels" as they attain positions of higher rank. Performance is monitored by the university administration requiring faculty to complete annual confidential reports on what they have done.

• *Positions Filled in Relation to Established Posts*. On average, the percentage positions filled are 74 percent (i.e., agricultural economics departments) and 80 percent (i.e., economics departments) (Tables 3a and 3b). However, the degree to which they are effectively or actually (i.e., those actually currently working in the department — that is not on study leave or leave without pay) filled is much lower, specifically 60 percent and 68 percent for agricultural economics and economics departments respectively. Additional points to note from the figures presented and as a result of our discussions are:

- **U** The ratio of filled to vacant positions is higher at the lower ranks, a finding that was not unexpected, especially given the difficulty of recruiting and retaining faculty at the higher ranks.
- **U** Sometimes positions are overfilled at lower ranks to partially offset higher vacancy rates at higher ranks (e.g., Assistant Lecturer post at Egerton) — this is sometimes necessary in order to implement the teaching load and is of course cheaper because of lower salaries received by people in the lower ranks.
- **U** Vacancy rates are sometimes relatively high because of a freeze on hiring especially during periods of financial exigency (e.g., Kenya and Tanzania, until recently).

• *Gender Distribution*. Women are generally poorly represented in the academic staff of agricultural economic and economic departments (Tables 4a and 4b). For agricultural economics departments, there is an average of 2.2 women faculty while the average male: female ratio is 7.10:1. For economic departments the corresponding figures are 2.7 and 9.66:1.[6]

[6] To provide some means of comparison, and perhaps help indicate what might be the trend in future faculty composition, we were told that 50 percent of the postgraduate students in agricultural

- *Percent of Faculty Without Ph.D.s*. Tables 2a and 2b, and 3a and 3b, indicate substantial numbers of faculty do not have Ph.D.s. On average, the percentage of staff in agricultural economics and economics departments without Ph.D.s is 57 percent and 61 percent respectively. These percentages are high relative to all staff in faculties of agriculture (i.e., about 48 percent) found in a fairly recent study of some of the same universities, particularly with reference to departments concentrating on crop and animal science (i.e., 39 percent and 45 percent) (Ekwamu et al. 1998). However, since large numbers of staff are on study leave (i.e., mainly studying for Ph.D.s) relative to those of more senior ranks, who invariably already have Ph.D.s and are on leave without pay, this means that the percentage of effective or actual staff (i.e., those on seat) who do not have Ph.D.s is lower, that is, 49 and 58 percent for agricultural economics and economics departments.
- *Age Distribution of Faculty*. During the Steering Group (see Sections 1.1 and 1.3) meeting in Nairobi on May 13, the observation was made that many departments are faced with a faculty that is weighted towards the higher age groups. One possible reason for this hypothesis is that, during the heyday of the Structural Adjustment Programs (SAPs), interest in/support for agriculture waned and those with an economic interest gravitated towards the macroeconomic area. However, although we did not undertake a quantitative assessment of faculty ages, we received the following qualitative impressions:
  - **U** As individuals get older, and all other things being equal become more senior in rank, the likelihood is that they often eventually leave for other more remunerative jobs (i.e., because of a corresponding increase in their opportunity cost) (see Section 2.5). This certainly inhibits the development of an aging faculty.
  - **U** Although it is possible that the attractiveness of agricultural economics as a career was less during the SAP era, the fact is that many universities did have vigorous and attractive staff development programs in the early 1990s that still attracted young staff into agricultural economics departments.
  - **U** Finally, we received the distinct impression that most departments are still recruiting and arranging for the training of young staff not only to replace older staff who have left (e.g., Makerere Department of Agricultural Economics and Agribusiness) but also to address new perceived markets for agricultural economists (e.g., Sokoine have hired individuals with MBA's because of rapidly developing interest in the agribusiness area).

  Therefore, we are not convinced that in many agricultural economics departments there is much evidence of an age distribution biased towards higher ages of academic staff. In any case, even if there has been some bias in a few departments, we do not expect this to be a long-term phenomenon given:
  - **U** The liberalization/privatization of the economies in the region.
  - **U** As mentioned above, the development of agribusiness as agriculture becomes more market oriented.

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economics at Nairobi are now women.

- **U** The current interest/concern about reducing poverty, which will mean specifically focusing on rural areas in general and on agriculture in particular because that is where most of the poor people still reside.

## 2.3 ORIGIN OF TERMINAL DEGREE

Further insights into the capacity of faculty teaching in the agricultural economics and economics areas were obtained by examining the origin of their highest degree. Data on these are presented in Tables 5a and 5b. Major points to note are:

- For those with Ph.D. terminal degrees, 65 percent (i.e., agricultural economists) and 61 percent (i.e., economists) of them have obtained them from Europe, Australia, Japan, or North America. Twenty-two percent and 25 percent of the Ph.D.s for staff in agricultural economics and economics departments respectively were obtained from African universities. However, of those 83 percent and 96 percent respectively were obtained from their own universities.
- One significant point to note about Table 5b is the number of faculty in the Department of Economics, University of Dar es Salaam, who have obtained their Ph.D.s from their home university. In one sense, this could have a negative connotation in implying a lack of diversity and perhaps even inbreeding. However, the majority of these have consisted of course work plus dissertation. The course work component has involved "sandwich" type-courses at Lund University in Sweden. This special relationship with Lund University has enabled the University of Dar es Salaam to have a much larger percentage of positions filled and actual staff (i.e., staff on seat) with Ph.D.s than is the case for other universities in the region — that is 87 percent and 96 percent respectively (see Table 4b).
- For those without Ph.D.s, 46 percent of agricultural economics faculty and only 28 percent of economics faculty have obtained M.Sc./M.A. degrees from North American, European, Australian, or Japanese universities. Fifty-two percent (i.e., agricultural economics) and 58 percent (i.e., economics) of the terminal M.Sc./M.A. degrees of staff members were derived from African universities, of which 54 percent and 58 percent respectively were from their own universities.
- Thus, a relatively high percentage of all terminal degrees of staff were obtained from their own universities (i.e., 37 percent in agricultural economics and 35 percent in economics).

Although perhaps the data presented provide no real surprises, they do give rise to questions about the current capacity of some of the faculty particularly with reference to teaching at the postgraduate level. The data indicate not only a relatively high percentage of faculty having terminal degrees at less than the Ph.D. level, but that most have been obtained within their own countries, usually at their own universities. Lack of exposure to being trained outside their own universities, and the type of Ph.D. traditionally obtained, namely a dissertation with no course work, obviously raises questions about the

potential quality of some of the courses taught, particularly at the postgraduate level.[7, 8] Given the financial constraints that universities in the region (i.e., resulting in low salaries) (Ekwamu et al. 1998) face, together with the service teaching obligations associated with agricultural economics and economics, university administrations have little choice but to pursue their current strategies. However, it does raise serious questions about the degree to which quality microeconomic capacity is being developed in the region.

During the visit to the University of Zimbabwe, a vigorous discussion emerged in meetings in both the Departments of Agricultural Economics and Extension, and Economics, about the relative merits of Ph.D.s from North America and Zimbabwe. North American universities require extensive course work plus a dissertation usually relying on extensive use of quantitative techniques with a relatively narrow focus. In contrast, Ph.D.s in Zimbabwe, particularly those completed prior to the 1990s, often involved no course work but consisted of dissertations that relied relatively less on quantitative techniques but often had a wider focus and perhaps related more to the practical issues facing the country. The discussion revolved around the relative merits of the analytical rigor and often more a reductionist focus of the North American degree compared with the more qualitative approach and wider systems focus of the Zimbabwe degree. In the end, the conclusion was drawn that there was room for both approaches/philosophies rather than just one or the other. Analytical rigor is important in order to be able to draw objective conclusions but it must not be an end in itself. Such conclusions need to be translated into practical implications, which usually need to be interpreted in terms of the practical realities of the wider society.[9]

## 2.4 STAFF AUGMENTATION: STUDY LEAVE

Most universities have Staff Development Programs because of the shortage of fully qualified individuals. Thus, study leave to obtain postgraduate degrees (i.e., usually Ph.D.s) is a normal

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[7] An additional issue is, of course, whether or not a person with a master's degree should in fact teach courses, or supervise theses, at the master's degree level. In fact, a number of universities (e.g., Makerere, Kenyatta, etc.) permit this in situations where the proposed instructor is very experienced and has demonstrated professional competence (e.g., has taught for 10 years or has a rank of at least Senior Lecturer).

[8] In fact some staff we spoke to, who obtained Ph.D.s some years ago, requested opportunities to undertake "refresher" courses to upgrade their skills. This appears reasonable given deficiencies in access to literature in many institutions (see Section 5.4) and the lack of time devoted to research by many staff (see Sections 3.3 and 3.4).

[9] In fact, a point raised in discussions was that perhaps the research system of the AERC had become too reliant on the goal of analytical rigor at the expense of drawing practical implications and that, as a result, efforts should be made to bring about a better balance between the analytical rigor and ensuring that practical conclusions/implications result. We were told later, in fact, that potential policy implications are an important indication in determining whether or not AERC research grants are approved.

commitment on the part of most agricultural economics and economics departments. Tables 6a and 6b indicate the actual numbers currently on study leave.

Obviously those benefitting from study leave usually are drawn from the lower ranks. In countries with very limited numbers of trained individuals, recruitment occurs at the B.Sc. level and thus training obligations of the department/university potentially involve both masters and Ph.D. degrees (e.g., Rwanda and Alemaya). However, in countries with more trained individuals, recruitment can take place at the masters level and thus training obligations are lower. A common strategy is to recruit the best masters-level students who are completing their degrees at the home university or, in the case of Kenya where there are a number of universities, from another university in the same country (see Tables 5a and 5b).

The magnitude of study level currently being undertaken varies greatly from being very high in absolute terms (i.e., Ethiopia) and relative terms (i.e., Ethiopia and Rwanda) to being relatively low (e.g., Kenyan universities in general). The significance in Rwanda is understandable because of the need to rebuild capacity after the genocidal war. Ethiopia is plagued particularly by a low return rate after degree completion. We were told the return rate in that country can be as low as 30 percent. However, the return rate has been a problem in a number of countries although generally not as extreme as in the case of Ethiopia. Obviously, conditions of service in the home country are one of a number of factors that influence the likelihood of return. Such a loss of human capital is a major concern and a number of different strategies are increasingly being used to improve the return rate, since the traditional bonding system has generally proved to be ineffective.[10] Three of them are as follows:

- No longer sending staff to countries where immigration regulations are less stringent such as the USA and the UK to some extent because of the relative ease of moving on to the USA (e.g., Alemaya).
- Sending staff to countries that are less attractive and/or that have tougher immigration systems (e.g., India, South Africa, Germany, etc.) (e.g., Alemaya).
- Setting up "sandwich" course type arrangements, specifically at the Ph.D. level, where staff do concentrated course work for a limited period (e.g., up to one year) which keeps them more connected to their home institution (e.g., Dar es Salaam, Alemaya).
- Increasingly rather than threatening punitive measures for failure to return, which tend to create adversarial relationships, university administrators are trying to develop incentive systems to encourage faculty to return from study leave (see Section 8.6). This is obviously a more positive and constructive approach.

[10] Bonding has often consisted of two years of service for each year of study leave. However, this has not always been honored and punitive measures have often proved to be unenforceable. Thus one university has put in place a system where another faculty member stands surety for the return of the person on study leave. Failure of the person to return, in theory, results in the salary of the person standing surety, being docked!

## 2.5 STAFF ATTRITION: LEAVE WITHOUT PAY

Leave without pay is creating major problems in some universities as can be seen in Tables 6a and 6b. It is a particular problem in Kenyan universities and in Dar es Salaam and Chancellor College. It can have a particularly negative impact because:

- It is more prevalent with those individuals who have stronger academic credentials (i.e., those individuals at higher ranks and hence higher opportunity costs).
- It is more likely to attract those individuals with established reputations and practical skills required in the market place.
- It is usually perceived as being a risk averse exit strategy from the university.
- Such individuals occupy a post on the establishment that cannot be filled until they resign thus reducing the numbers of actual staff in place (see Tables 3a and 3b).

Obviously the leave without pay strategy employed by many individuals is a response to the low incentive/reward systems (e.g., salaries and benefits) existing in most of the universities of the region combined with increasing teaching loads (see Section 3.2) and poor working conditions/facilities (see Sections 5.2 and 5.3). Also, we believe it is more likely to occur, ceteris paribus, in universities in more remote locations (e.g., Egerton) where it is less easy to combine part time consultancy work with university teaching and other responsibilities. Unless checked, this is likely to increase further, particularly for agricultural economists, as a result of increased emphasis on poverty alleviation and commercialization of the agricultural sector.

The problem of leave without pay has prompted a number of strategies to be used to discourage or reduce its prevalence. Unquestionably if these were not in place the figures would be much higher than those shown in Tables 6a and 6b. Different strategies being employed are:

- Do not permit leave without pay — instead it is necessary to resign and reapply later if one wishes to return (e.g., Ethiopia).
- Reduce permitted length of leave period without pay (e.g., Sokoine has reduced it from five years to two).
- Create incentives to stay in university — for example, improve the retirement package such as has been done at Makerere (see Section 8.6).
- Allow consultancies as long as they do not interfere with teaching and other university responsibilities.
- Encourage/induce those on leave without pay to continue to do some part time teaching and supervising — this is feasible when individuals are working near where the university is located (e.g., Nairobi).

It is also apparent that there are in some places more intangible reasons why requests for leave without pay do not seem to be a prominent part of the culture (e.g., Bunda and Sokoine). These can be loosely interpreted as part of the incentive system but are not necessarily articulated in monetary terms

and include factors such as flexibility in working hours, varied nature of work, professional challenges, etc. (see Section 8.6).

## 2.6 DEPARTMENT OF AGRICULTURAL ECONOMICS, EXTENSION AND RURAL DEVELOPMENT, UNIVERSITY OF PRETORIA

Two visits were made to Pretoria to talk to staff members of the Department of Agricultural Economics, Extension and Rural Development. The purpose of this was different from that of visiting the other universities in the region. The objective was to learn more about the proposed regionally based M.Sc. degree in Environmental and Natural Resource Economics (see Section B10.2) and to ascertain the potential capacity for mounting "sandwich" courses for Ph.D. candidates in other universities in the region (see Section 8.4).

To provide comparisons with other universities in the region we present the same types of data for the University of Pretoria in Table 7. It is apparent that the potential capacity of the department compares very favorably with other departments of agricultural economics, and, at least on paper, the university has the capacity for mounting such courses, although this could perhaps become problematical if the numbers became very large.

## 2.7 IMPLICATIONS

The information presented in the preceding sections conclusively shows that there is a wide range in terms of the size and strength of agricultural economics and economics related departments in the region. There are four important implications that need to be taken into account in terms of designing an initiative to create a foundation for improving agricultural economics capacity in the region. These are to:

- Identify and implement a strategy that will enable the stronger agricultural economic departments in the region to help in improving the capacity of the weaker departments.
- Improve the capacity of the faculty in the departments through identifying ways for them to complete their Ph.D.s if they do not currently have a way to complete them.
- Identify and implement strategies that create incentives for faculty to return to their home institutions after study leave for their Ph.D.s and to stay in their departments as they become more senior in rank and experience.
- Find ways to help staff, already possessing Ph.D.s, upgrade their skills through "refresher" type courses.

# CHAPTER 3 — WORK RESPONSIBILITIES

## 3.1 INTRODUCTION

In this chapter, we look at the work responsibilities of the faculty in the departments of agricultural economics and economics. The major responsibility for most academic staff is to fulfil teaching responsibilities and supervise postgraduate students. Following this, we look at research-related issues. Research output is an important criterion in terms of determining suitability for promotion. Because of the relatively poor financial rewards in academia, particularly in comparison to those achievable in the private sector, a section is then devoted to issues relating to consultancy work. A concluding section discusses the relationship between teaching, research, and consultancy work.

## 3.2 TEACHING/SUPERVISION

Most universities in the region are now organized on the semester system and those that are not are moving in this direction (e.g., Sokoine).

The usual officially accepted and desirable teaching workload is recognized to be six hours per week and sometimes nine hours per week. However, we heard of many examples of staff teaching more hours per week than this (e.g., up to 15 to 20 hours per week). This is frequently occurring for one or more of the following reasons:

- Staff shortages in relation to approved establishment (see Section 2.2).
- The relatively large numbers of staff in some universities on study leave and/or leave of absence (see Sections 2.4 and 2.5).
- The large amounts of service teaching expected from economic and, to some less extent, from agricultural economics departments in Faculties of Arts and Social Sciences, and Faculties of Agriculture, respectively.[11]
- The increased popularity of part-time students (i.e., privately sponsored) who take their bachelor degrees over a period of six or seven years, via evening classes, rather than the three to five year span for full time students (e.g., Addis Ababa and Makerere).[12]
- The proliferation of degrees at the B.Sc. level, particularly in agricultural economics type departments (see Section 4.3).

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[11] Faculties of Arts and Social Sciences are generally larger than Faculties of Agriculture. In special situations, the teaching loads of agricultural economics departments can be as onerous as economic departments especially when the university contains no department of economics and there are faculties in addition to that of agriculture (e.g., Alemaya and Sokoine).

[12] The incentive for faculty to take on extra teaching duties via evening classes to privately sponsored students is that they are usually paid extra for doing so (e.g., Addis Ababa and Makerere).

Concurrently with the increased teaching loads of many academic staff, there has been a marked increase in the sizes of many of the classes at the undergraduate level, particularly in service-oriented courses. Sizes of classes in introductory courses (i.e., usually first year) of about 200 are not uncommon with the maximum number around or over 500 (e.g., Zimbabwe Department of Economics, and Kenyatta and Nairobi Departments of Economics). Generally as students progress to upper-level classes at the undergraduate level the sizes of the classes decline to a more manageable level ranging from about 25 at the lower end to about 100 at the upper end. The large numbers involved have resulted in some universities abandoning the seminar/tutorial type classes and in others generally acknowledging a decline in quality/attention (e.g., Dar es Salaam).

Not surprisingly, in the light of the above trends, many faculty expressed concerns about the quality of teaching and ability to provide adequate evaluation/assessment. Compromises in such situations are inevitable. One strategy that is being used is to employ part time lecturers (e.g., Nairobi, Makerere, Addis Ababa)[13] while others are considering using postgraduate students to teach service-type courses (e.g., Sokoine and Dar es Salaam). In the National University of Rwanda, the situation is even more desperate. Because of the dearth of individuals qualified to teach certain courses, lecturers sometimes come from overseas (e.g., Belgium) to teach a whole course in a two-week period, during which time period, teaching of other courses is suspended. Understandably complications arise in assessing the performance of students in such courses.

However, at the postgraduate level, the situation is entirely different and another set of constraints/limitations becomes apparent. Two important ones are the following:

- As will be discussed later (see Section 4.2), the classes are small raising concerns about the costs of mounting such degrees especially in the light of the increasing pressures at the undergraduate level.
- The limited numbers of faculty in many departments who are qualified to teach and supervise at the postgraduate level. In many universities (e.g., Kenyatta), faculty with terminal degrees at the masters' level are allowed to teach postgraduate courses providing they have considerable experience (e.g., 10 years teaching experience). Also, in some universities regulations are in place restricting "qualified" academic staff to supervising no more than five postgraduate students at a time (e.g., Makerere).

Three potential consequences of the above situation are that:

- The numbers of courses actually offered and taught at the masters' level are likely to be somewhat limited (i.e., what appears potentially possible on paper and what actually happens may differ significantly).

[13] This is easier to do when the university is located in a major city where there are likely to be a lot more highly qualified people.

- The courses actually offered could reflect the interests/competency of the qualified faculty — which could be a problem in departments where such numbers of qualified individuals are very limited.
- In departments with a limited number of qualified individuals, the number of postgraduate students that can be admitted will also be limited, therefore potentially contributing to the small classes mentioned above. However, we believe that, although this is potentially a problem, the major constraint limiting numbers of students, particularly in stronger departments is lack of sponsorship (see Section 4.2).

However, the implications of the above discussion on teaching responsibilities are clear. Many academic staff are faced with onerous, stressful, and time consuming teaching commitments. Since in many departments the faculty are often young and relatively inexperienced and do not have Ph.D.s the teaching burden is likely to be mainly on their shoulders. Such commitments, although likely to be less demanding in agricultural economics than in economics departments, nevertheless do detract from the potential time that faculty can, and should, devote to other activities such as research.

Finally another trend that is developing as a revenue generating activity for some departments is the mounting of short-term in-service training courses for individuals and organizations in the public and private sectors (e.g., Bunda and Sokoine).

## 3.3 RESEARCH

A mixed picture emerged when we looked at research activities and output of the different departments.

It was apparent that little research is being done by many faculty. Reasons for this include the following:

- The heavy teaching loads of many staff combined with large classes at the undergraduate level.
- Because of the low salaries many faculty have to supplement their incomes from other part-time occupations, including consultancy-type activities, which detracts from time available for research.
- Lack of postgraduate students to create a multiplier factor for research efforts, and where they do exist, often failure to transform results of their theses into useful output (e.g., recommendations for action, publishable papers, and journal articles, etc.).
- Lack of funding for research and/or knowledge about research funding sources.

In terms of research funding opportunities it is apparent that:

- Research funds available from university sources have declined over time and are available only in very limited quantities.
- Greater opportunities exist for accessing research funds by more qualified staff (i.e., academically and/or experienced) and by stronger departments.

- More opportunities exist for accessing research funds in more applied/practical areas, for example, for agricultural economists rather than economists.
- More opportunities for accessing research funds exist when faculty become linked with:
  - **T** Other researchers in the same organization (e.g., competitive grant/activity bidding such as is being done at Sokoine).
  - **T** Researchers/development actors in other organizations — e.g., the Agriculture Research Fund (ARF) competitive bidding in Kenya, the ARTP in Ethiopia, the various economic policy research institutes (see Table 1b), etc..
  - **T** Networks (e.g., AERC, ECAPAPA, IFPRI, FANRPAN,[14] Soil Fertility Research Network, the Forum Program).

During the field trips, it became obvious that a few academic staff, who were well linked to outside organizations, were very busy and productive in their research endeavors. Particularly noteworthy in this regard were those associated with the RF sponsored Forum Program (e.g., Makerere, Bunda) and the Soil Fertility Network (e.g., Bunda, Zimbabwe) also sponsored by the RF. Both these initiatives are having a favorable impact in that they permit sponsorship of postgraduate students in agricultural economics departments, and certainly in the more technically-oriented departments (e.g., Crop and Animal Science) they have played a major role in facilitating promotion of academic staff as a result of research publications resulting from such support (e.g., Makerere, Bunda).

Demonstration of research output in journal articles and published papers is generally viewed as vitally important in attaining promotion, although one prominent academic in the region indicated that, on occasion, in some universities this criterion has been relaxed to ensure that at least some positions are filled at more senior ranks. Having some of the more senior positions filled is obviously considered important for the image of the university. However, demonstrated research productivity is an important indicator of the capacity of the departments to produce well-trained and competent agricultural economists and economists.

Three methods of encouraging/inducing increased research productivity in university departments in the Eastern/Southern Africa Region are the following:

- Faculty are being encouraged when submitting research proposals for funding, to budget, whenever possible, funds for supporting a postgraduate student (e.g., Sokoine, Pretoria). Such a strategy potentially addresses two concerns:
  - **T** Provides an opportunity for sponsorship of postgraduate students (see Section 4.2).
  - **T** Potentially contributes to faculty being more productive in research activities (i.e., potentially improves his/her multiplier impact).

[14] That is, The Food, Agriculture and Natural Resources Policy Consortium and Network for Southern Africa (University of Zimbabwe, Harare, Zimbabwe).

- Donor/granters providing a small honorarium for supervising students, thus helping to supplement in a small way, individual academic staff salaries (e.g., as is done in the RF sponsored Forum Program).
- Government rewarding departments for published peer reviewed articles and papers. For example, at Pretoria, government subventions to departments are based on numbers of students and research productivity. The money for research productivity is given to individual staff members, based on their productivity, for professional use.

Undoubtedly improving opportunities for faculty to do good quality research will need to be an important component of any strategy to improve agricultural economic capacity in the region. An important constituent of this will be the provision of adequate support systems in the form of access to agricultural economics literature, computers and software (see Chapter 5).

## 3.4 CONSULTANCIES

Consultancies, in recent years, have become an important means for some faculty to improve their material well-being. We sense that many universities in the region have, and are in the process of changing their attitudes and approach to dealing with consultancies.[15] A more pragmatic approach is evolving in place of earlier attitudes that disapproved of consultancy activities, which were viewed as being incompatible with the traditional/conventional teaching and research duties of academics. Increasing realisation that it is unlikely that governments will substantially increase faculty salary levels has led many universities to start accepting consultancy work as a normal feature of academic life. Consequently, many universities have worked out regulations for engaging in and sharing the proceeds of consultancy activities. Sokoine University, for example, formed the Bureau of Agriculture Consultancy and Advisory Services (BACAS) with the aim of faculty providing consultancy services. The aim is for the faculty member providing the services to receive 80 percent of the proceeds with 20 percent going to the university. Currently, however, most of the proceeds from such activities accrue to individual agricultural economists and agricultural extension specialists. Other places are including an incentive for the department in which the consultant is located. The ratios vary but generally individuals receive 50–75 percent of the consultancy fee, departments receive 20–40 percent and the university administration receives 5–10 percent.[16] In many cases this is still in the planning phase and it is generally recognized and accepted that a certain amount of completely private consultancy work will continue to occur. However, given the fact that individuals doing consultancy work invariably make use

[15] Pretoria appears currently to have the most conservative approach to permitting individual consultancies. This probably reflects the somewhat better salaries and benefits accruing to their staff relative to elsewhere in the region, although their salaries are still low compared to the private sector.

[16] The Faculty of Agriculture at the University of Zimbabwe is planning on an individual: department: administration split of 25:50:25 with the department having the flexibility to increase the proportion going to the individual through reducing its own proportion.

of offices and equipment belonging to the universities in fulfilling their assignments, it is not unreasonable to expect them to contribute some of their earnings to compensate for such use.

For an approach to consultancy work that will work effectively it will be necessary for universities to:

- Change their perception/philosophy of being a parastatal type of institution to one that incorporates more of a money-based orientation, which accepts consultancy work as normal rather than as an appendage.
- Resolve conflicts in terms of time and timing with other university responsibilities.
- Accept consultancy work/reports as an input into the promotion process (e.g., as is the case in Bunda, Sokoine, and Makerere).

Makerere is an example of a university that has moved a long way in this direction. A recent paper published by the World Bank (1999) in fact applauds the "quiet revolution" that is taking place at Makerere. We were told by the Vice Chancellor of Makerere University that 50 percent of the funding for running the university now comes from non-governmental sources.[17] Indeed, increasingly the perception appears to be growing of the positive benefits of consultancy work namely that:

- Since it is demand-driven, activities associated with it are relevant to the needs of the society.
- It helps dispel the "ivory tower" image of academia and potentially helps improve their credibility with the "outside world".
- It has spin-off benefits in helping faculty through:
  - **T** Relating the outside world to the classroom (e.g., provides current case studies, for example, at the University of Zimbabwe).
  - **T** Establishing their credibility outside the university (e.g., Sokoine) and, as a result, frequently leads to further opportunities, for example, even research.
  - **T** Sometimes resulting in published articles/papers.
  - **T** As indicated above, is sometimes accepted as one of the factors determining promotion.
- It can have spin-off benefits for departments and individuals in the form of improving the equipment, hardware and software situation — for example, laptop computers accruing to individuals.

Not surprisingly, therefore, increasing understanding and appreciation of the benefits from consultancy work accruing not only directly to universities but also to individuals (i.e., and hence potentially indirectly to universities) seems to be leading towards an even more relaxed attitude on the part of many university administrations, in the sense that private consulting is permitted/tolerated as long as it does not interfere with, or decrease the efficiency of, teaching and supervisory activities. We see this as a desirable development given the precarious financial situation of the majority of universities in the region and the need to find ways to retain the services of senior faculty who are likely to have the most opportunities for doing consultancy work.

[17] Much of this comes from fee paying part-time students who take degrees via evening classes.

## 3.5 RELATIONSHIP BETWEEN TEACHING, RESEARCH, AND CONSULTANCIES

Are there potential problems relating to the trend towards adding consultancy work to the conventional teaching (i.e., including supervisory) and research duties of university faculty? On reflection, given the resource constraints in the region, both financial and human capital (i.e., in terms of agricultural economists and possibly economists), this need not necessarily be the case providing certain safeguards can be effectively put in place. Two important ones are the need to:

- Fulfil teaching responsibilities.
- Develop and advance professionally through demonstrated research output.

An interesting approach used by Dar es Salaam (i.e., economics) and Zimbabwe (i.e., agricultural economics) in an effort to ensure the above, is for each faculty member to complete on an annual basis a self-assessment form on progress, which is forwarded to the department and university administration for evaluation. Failure, for example, to perform adequately at the research level at Dar es Salaam can at least result in no promotion, or worse, demotion or even dismissal. This could potentially be very important in maintaining productivity of more senior staff and less than conscientious junior academic staff.

We are not convinced that consultancy work is therefore a problem as long as the safeguards given above are not violated. Indeed opportunities for consultancy work are generally positively correlated with demonstrated competency and relevant experience (i.e., the opportunity cost of not doing consultancy work increases with experience and demonstrated output from consultancy work). Therefore, such types of activities, all other things being equal, are unlikely to constitute a major deterrent to the academic progress of young academic staff as they progress up the academic rank "ladder."

However, in practice, it is apparent that the safeguards are not always adequately put in place meaning that quality of teaching and quantity/quality of research are both likely to be sacrificed to some extent. When asked during the field trips what, on average, was the proportion of time a faculty member spent on teaching, research and consultancy activities the figures were often around 30–40 percent, 10–15 percent, and 30–40 percent respectively with the remaining time spent on administration, committees, etc. The low percentage of time spent on research is a major concern especially as the multiplier impact of the research activities of many academic staff is constrained by the very limited number of postgraduate students that they supervise (see Section 4.2).

## 3.6 IMPLICATION

The basic implication of this chapter as far as improving the capacity relating to agricultural economics in the region is to identify and implement, to the extent possible, given the realities existing

in the region, ways in which academic staff in agricultural economics departments can re-establish some degree of balance between teaching, research and consultancy work through greater and more efficient use of postgraduate students in teaching and research-related activities, and through improving incentives and conditions of service.

# CHAPTER 4 — DEGREES AND COURSES

## 4.1 INTRODUCTION

After reviewing the numbers of students graduating at the undergraduate and postgraduate level in agricultural economics and economics in universities in the eight countries visited (i.e., excluding South Africa) we briefly review the types of degrees being offered. This is followed by a discussion on the course content of the master level agricultural economics degree and the chapter finishes with a short discussion on the Ph.D. degrees.

## 4.2 STUDENT NUMBERS BY DEGREE

An indication of the numbers of students graduating in agricultural economics and economics at the bachelor and master degree levels from the eight countries in the region (i.e., excluding South Africa for which we only have figures relating to the University of Pretoria) is given in Tables 8a and 8b, and 9a and 9b.

It is apparent that currently the numbers graduating at the bachelor degree level are substantially lower in agricultural economics departments than in economic departments with little correlation between the apparent strength of the department and the specific numbers graduating. Specific points to note are the following:

- While all countries seem to be producing a reasonable number of B.A. degrees there are currently no B.Sc. degrees in agricultural economics being produced in universities located in three countries in the region, namely:
  - **T** Ethiopia where, against the wishes of Alemaya University, the government stopped the B.Sc. in agricultural economics in 1997, arguing that agricultural economics was simply a branch of economics, which is taught at Addis Ababa. This was particularly disappointing given the importance of agriculture in the economy of Ethiopia and the apparent popularity of the B.Sc. degree in agricultural economics among students in the Faculty of Agriculture, when it was being offered.
  - **T** Rwanda, where an option in agricultural economics in the general agriculture degree has just been approved (i.e., in May 2001) and will be offered once the staffing situation has improved.
  - **T** At Eduardo Mondlane in Mozambique, where currently there is still no option in agricultural economics in the first degree in agriculture. Currently individuals do a little more agricultural economics in two of the options, specifically crop production and forestry engineering.
- It is apparent that where there is an option in agricultural economics in the general B.Sc. agriculture degree, this proves to be the most popular option (e.g., in Nairobi, Bunda, Makerere, and Zimbabwe). At Makerere and Bunda, in fact, this has led to a quota or upper limit being placed on the number choosing the agricultural economics option.

- Most B.A. degrees offer optional courses in agricultural economics, so expertise in agricultural economics is not solely the domain of agricultural economics departments. For example, the Economic Research Bureau in the Department of Economics at Dar es Salaam has a number of agricultural economists who participate in the teaching program of the department. Similarly, the Economics Department at Zimbabwe also has a couple of agricultural economists teaching agricultural economics courses. Also, Chancellor has at least one agricultural economist who also teaches environmental economics. Other examples of getting exposure to agricultural economics into B.A. economic degrees are:
  - Having a staff member of the Department of Agricultural Economics at Nairobi teaching an agricultural economics course in the Department of Economics.
  - Having an option in agricultural economics in the B.A. degree of the Department of Economics at Makerere being taught by the Department of Agricultural Economics and Agribusiness at the same university (i.e., 20 in the most recent graduating class).
  - Potentially exposure to agricultural economics in the National University of Rwanda will occur once two of the current faculty have completed their M.Sc. degrees in South Africa.[18]
- It was not possible to get any reliable data on the numbers of students starting and not completing bachelor degrees, although for example, Sokoine did indicate that 15 to 20 percent of the students did not complete or did not complete within the scheduled time because of repeating years as a result of failing courses.[19]
- Many of the students taking undergraduate degrees are sponsored by government or can access student loans.

Turning to the master degree level, there is little in the way of a discernable trend in the numbers of students graduating over the last decade in agricultural economics and economics, although information given in an earlier report on parts of the region (Norman 1998, p. 12) suggested that the numbers of postgraduate students in these fields have been declining in the last decade. However, during the field trips there was ample anecdotal evidence that this was not due to a lack of job opportunities, particularly in agricultural economics (see Chapter 6), but rather decreasing opportunities for sponsorship. Governments in the region do not generally provide sponsorship for postgraduate students. The numbers of students applying for admission to postgraduate degrees far outweigh the ability of many departments to cater for them, while of those admitted many never take up the offer (e.g., 50 percent at Sokoine) because of the lack of sponsorship. Additional points to note about students being trained at the master degree level are:

- Over the last decade, the numbers of students graduating with M.A./M.Phil. degrees in Economics have far outweighed those graduating with M.Sc. degrees in Agricultural Economics related areas.

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[18] However, it is interesting that none of the recent graduates in economics did their memoirs (i.e., mini-theses) on agriculturally related topics.

[19] It is apparent that repeating courses and having to retake exams is a contentious issue since, after our visit to Egerton, the university was closed due to student protests relating to this matter.

This is of particular concern given anecdotal evidence that the job market for agricultural economists seems to be robust relative to that for economists (see Chapter 6).

- The majority of the economic graduates at the masters' level have come, and continue to come, from the stronger economics departments (i.e., AERC Category B departments) namely Addis Ababa, Nairobi, Chancellor, Dar es Salaam, and Zimbabwe, where quality is ensured through the AERC relationship (see Appendix D2). Makerere also produces a substantial number of M.A. economic graduates.
- In the case of agricultural economic departments, the numbers of graduates at the M.Sc. level are dispersed over a larger number of universities, although the numbers of students graduating from universities we assessed as potentially the strongest have graduated substantial numbers (i.e., Nairobi, Sokoine, and Zimbabwe). What is particularly surprising are numbers that have graduated from universities that in recent years have not appeared to be very strong (i.e., Alemaya and until recently, Makerere). However, apart from the three stronger departments, most of the universities offering M.Sc. degrees have very small classes raising serious questions about the cost efficiency of offering such degrees, especially given the heavy teaching loads of staff in many departments. Four strategies that are sometimes used or could be used to address this issue are:
  - **T** Confining entry of students into the M.Sc. degree once every two years as is done in Zimbabwe. In addition to making the classes bigger, it also cuts down on teaching time since each course only needs to be offered once every two years.
  - **T** Combining two different groups of students doing the same degree into one class as is to be done at Makerere where a part time masters' degree in agribusiness is to be offered simultaneously with the current full time degree. Those taking the degree full time will be expected to do some of their classes in the evenings together with the part-time students.
  - **T** Using more of a tutorial and special topic type format rather than a formal lecturing mode.
  - **T** Where feasible (i.e., both departments are in the same university and they are geographically close), exploiting the comparative advantage of departments of agricultural economics and economics through having the latter teaching microeconomics, macroeconomics, and quantitative techniques/econometrics and the former teaching courses more specifically relating to agriculture. This has three advantages: increasing the size of the classes thereby improving cost efficiency; potentially fully exploiting the strengths of each department through using those best qualified to teach the courses, hence improving the quality of the courses; and, forging constructive and interactive links between the two related departments. Unfortunately, we were not able to find a situation where this synergism is being fully exploited, except with the possible exception of Pretoria, which is not one of the institutions we were asked to look at in detail.
- The above discussion and observations raise an interesting question — has the application of the AERC model (see Appendix D2), which has been used in improving the capacity of the economic departments in the region, although obviously improving the quality of M.A./M.Phil. degrees in economics in Category B departments, had a negative impact on the distribution of degrees granted across universities? The answer is likely to be yes but this is probably a preferred option in that the quality of M.A./M.Phil. degrees has improved, and possibly total numbers are higher, than would have been the case in the absence of the AERC initiative. Although Category A departments have been helped to some extent through provision of equipment, literature, and possibly training for

faculty, they obviously have not benefitted as much as Category B departments. The AERC approach does not ensure that these initiatives by themselves will enable such departments to attain Category B status and thus be able to produce AERC recognized M.A. degrees.

- Alemaya, with reference to agricultural economics, and the National University of Rwanda, with respect to both agricultural economics and economics, present rather bleak situations. In the case of the latter institution nothing much can be done until the staff rebuilding exercise has progressed further. In the case of Alemaya, one of the major problems is the closing down of the traditional source of agricultural economics M.Sc candidates — namely from the undergraduate degree in agricultural economics (see earlier in this section). Consequently the university is trying to attract students from other fields, through giving some "prestarting" or remedial courses in agriculture if they come from an economics/social science background and additional basic courses in economics/agricultural economics if they have a technical B.Sc. degree in agriculture.
- Theses still are an important component of most masters' degrees although, for at least one university (i.e., Nairobi M.A.s) this has been replaced by a research paper, which requires less time and supervision. While it is easy to understand the reasons for this change (e.g., lack of time and other onerous commitments on the part of faculty), we believe it is important to continue insisting on a thesis particularly in the case of M.Sc. degrees in agricultural economics. We justify this on the grounds that agricultural economics is an applied field and it is important for agricultural economists to have exposure to practical issues relating to the agricultural sector, something that is less likely to occur in a research paper option.
- One recurring problem we encountered during the field trips was that many masters' students take longer than two years to complete their degrees although most eventually do so. There are a number of reasons for this, some the responsibility of the student and possibly some the responsibility of the supervisors. Some departments are therefore seeking ways to improve the timely graduation of students and to introduce regulations that make it more difficult for students to extend their registration period (e.g., Nairobi Economics Department).

Finally, in concluding this section we wish to make one further point relating to the teaching program and to re-emphasize a point just made above:

- It was not possible, during the field trips, to come to any conclusion about the quality of the teaching program. However, all other things being equal, it would not be unreasonable to speculate that the quality/level is more likely to be lower if M.Sc./M.Phil. courses are taught by faculty without Ph.D.s, and by those who have obtained their Ph.D.s (i.e., particularly those emphasizing only a thesis) at the institution within which they are teaching (see Section 4.6). Unfortunately, as indicated earlier, faculty within departments quite often fall into one or both of these categories.
- More cross-over or synergism between agricultural economics and economics departments needs to be encouraged where feasible (i.e., departments of agricultural economics and economics are located in reasonable proximity to each other)[20] to:

[20] This becomes more problematical in certain countries and certain universities where both departments do not exist in the same university (e.g., Ethiopia, Malawi, Kenyatta, and Tanzania).

- **T** Exploit the comparative advantages each department possesses.
- **T** Reduce duplication of courses and hence improve cost efficiency through increasing the sizes of common courses at the postgraduate level (e.g., microeconomic and macroeconomic theory, econometrics).

## 4.3 BACHELOR DEGREE TYPES

Unlike the B.A. degrees in economics, which over time appear to have changed little cosmetically over the years, there has been a proliferation in the last few years, in the offerings at the B.Sc. level relating to agricultural economics (e.g., compare Tables 8a and 8b). Structural adjustment programs (SAPs), liberalization and privatization of the economies have, and are having, a profound impact on the agricultural sector and commercialization of agriculture. The increasing significance of the private sector — i.e., both profit and nonprofit, that is nongovernmental organizations (NGOs) and community based organizations (CBOs) — in providing services (i.e., both input distribution and output marketing) means agribusiness is emerging as a major employer of agricultural economics graduates. At the same time, increasing population densities are imposing increasing stress on the ecological base and, as a result natural resource economics is beginning to emerge as a major preoccupation issue particularly on the part of NGOs and CBOs.[21]

Agricultural economics departments have increasingly taken notice of these trends or new realities and have started responding to these demand factors. Initially the response often involved changing the name of the department to reflect explicitly agribusiness (see Table 1a) but over time the degrees themselves have placed more explicit emphasis on agribusiness. The general agriculture degrees, sometimes with an option in agricultural economics are increasingly being complemented or supplanted by agribusiness and agricultural economics bachelor level degrees, and in one case, possibly even a resource economics B.Sc. level degree (i.e., Nairobi). Egerton was the first university to offer the first two degrees but other larger and relatively well-staffed departments such as Makerere, Nairobi, and Sokoine have now adopted analogous strategies (see Table 8a). It is apparent the demand for such types of degrees now exists judging from the fact that Egerton is now producing on an annual basis 60 graduates in agricultural economics and 50 graduates in agribusiness.

Over time it is likely that this trend will continue and the general agricultural degree with an option in agricultural economics is likely to become part of history. We are not sure whether disappearance of such an option is unequivocally desirable because in a sense it potentially weakens the link with the technical sciences and technical scientists. This may not be desirable in certain types of employment situations — e.g., in National Agricultural Research Systems (NARSs) — but on the other hand we are convinced that it is appropriate and laudable that agricultural economics departments in the region are responding to the demands of the market place. This trend has another major advantage in that the pool

[21] This is one of the reasons for the emergence of a regional initiative for offering an M.Sc. degree in Environmental and Natural Resource Economics (see Appendix B10.2).

of applicants for entry into more specialized agricultural economics and agribusiness degrees has in essence been widened to include those who have social science qualifications and perhaps even stronger mathematical skills. However, this may also once again have a potential down side in terms of inhibiting constructive interaction with technical scientists since hard scientific backgrounds are no longer so likely to be found or even required. One possible approach, which would safeguard this potential link, would be to preserve the option of agricultural economics in the general degree and continue to require a strong science component for entry into that degree, a strategy that is currently still being pursued at Makerere and Nairobi. However, we must admit to being unsure as to whether this will continue to be an attractive/viable option especially as the more specialized degrees in agricultural economics and agribusiness are tending to be the same duration as some B.A. degrees (i.e., three years) rather than the four years usually associated with general agricultural degrees.[22]

Nevertheless, on balance we are very positive about the way in which departments of agricultural economics have become more demand driven in responding to the needs of the market place. Unquestionably the agribusiness area will continue to grow in significance.

## 4.4 MASTER DEGREE TYPES

There is generally less cosmetic differentiation at the M.Sc./M.A./M.Phil. level than at the B.Sc. level. Masters degrees in both agricultural economics and economics usually allow some choices in elective courses although, as we discuss in the next section (Section 4.5), the number and content of core compulsory courses vary significantly across universities.

In some universities, differentiation in the masters' degree is made a little more explicit through the introduction of options — e.g., Alemaya and Moi in agricultural economics (see Table 8a), and Addis Ababa and Makerere in economics (see Table 8b).

Only one university, Makerere, has gone to the next step of separating out masters' degrees into two distinct degrees, namely agricultural economics and agribusiness. In terms of the agribusiness degree, they are also planning on offering it on a part-time basis as well as full-time basis through holding evening classes. It is anticipated that a part-time agribusiness masters degree will attract private sponsorship both on the part of those employed full-time and in some cases, employee institutions. This, we believe, is an astute move, in potentially helping not only address the sponsorship constraint (see Section 4.2) but also can be potentially cost effective in increasing the size of the classes (see also Section 4.2) since the full-time students will do some of the courses in the evenings together with the part-time students. In connection with the agribusiness masters' degree, Makerere is in the process

[22] In fact, in two cases, Rwanda and Mozambique, the first degree in agriculture, the Ir. or Licence degree, takes five years. Many would argue the Ir. degree is more analogous to the M.Sc. degree in the Anglophone system.

of setting up an Advisory Board consisting of representation from the private sector. It is anticipated that this will:

- Give the agribusiness degree credibility and visibility.
- Improve the potential for private sponsorship of students.
- Nurture linkages between the department and the private sector.
- Ensure that the course content remains relevant to the needs of the rapidly evolving private sector.
- Improve the potential for students doing theses on topics relevant to the private sector (e.g., possibly working on a topic of interest to the sponsoring institution).

We believe initiatives such as those being pursued by the Department of Agricultural Economics and Agribusiness at Makerere University are very desirable in that they respond to the realities of the current world, operate in a demand-driven mode, and help ensure continuing relevancy of training programs. We hope that other agricultural economics departments will increasingly respond in a similar manner if their staffing situation permits (see Section 4.2).

During the field trips some discussions took place about the quality of those applying for M.Sc. degrees in agricultural economic related departments. The points raised relating to this issue can be summarized as follows:

- Some believe that attracting applications from individuals who have done a B.Sc. in agriculture with possibly an option in agricultural economics represents a narrow base from which to draw applicants. Also, because of the entry requirements for such a degree, those applying may not always represent the best potential applicants for doing an advanced agricultural economics degree.
- At the same time applicants with a B.A. in economics, who may be stronger candidates from the point of view of the analytical rigor of a strong agricultural economics M.Sc. degree in actual fact rarely apply. Reasons for this not occurring often relate to negative feelings about agriculture. In actual fact, from another perspective, they may be less desirable/suitable applicants because of their lack of knowledge about technical agriculture.
- The emergence of agricultural economics and agribusiness bachelor-level degrees has, however, opened up the possibility of attracting applicants from a bigger pool of B.Sc. degree holders. It has also improved the likelihood that the applicants for the M.Sc. degree will have a stronger background in agricultural economics, will have some understanding of technical agriculture, and will also likely be stronger analytically. This is potentially because the entrance requirements for such B.Sc. degrees may tally more closely with the types of skills expected to be demonstrated at the M.Sc. level.

Thus, we believe that there is an increasing opportunity for selecting stronger individuals for the M.Sc. degree because of the changes that have taken place at the B.Sc. level in recent years.

While on the subject of master degree types, mention should be made of the plans for a regionally based M.Sc. in Environmental and Natural Resource Economics where course work will be centralized at Pretoria and theses undertaken, and degrees awarded by, cooperating universities in the countries where the students usually reside (see Appendix B10.2).

## 4.5 COURSE CONTENT OF AGRICULTURAL ECONOMIC DEPARTMENT MASTER DEGREES

The core or compulsory courses can be divided into two groups (Table 10):

- The courses that are most commonly regarded as core courses (i.e., required by at least five departments) are:
  - **T** Theory: microeconomics, macroeconomics, and production economics.
  - **T** Quantitative methods: econometrics.
  - **T** A research methods class is taken in all departments.
- Other compulsory or core courses that are required by fewer departments (i.e., less than five).

Thus the number and range of courses that are required (i.e., are compulsory) vary widely from a minimum of five to a maximum of 10. Sometimes a course that is compulsory in some departments may be an elective in other departments. For example, while nearly all the departments take econometrics as a core course, Sokoine treats it as an elective. Similarly, Egerton treats mathematical economics as an elective whereas four other departments do not offer it at all. There is also a wide variation in the time departments allocate to the core courses. For example, the time allocation for microeconomics ranges from 30 to 48 contact hours (Table 10).

Drawing any definitive conclusions from the material presented in Table 10 is not possible. Titles of courses are at best poor predictors of the content of the courses, and in fact material covered in one course could be dealt with in another course with a different title. For example, it is very unlikely in an M.Sc. degree in agricultural economics that some students would not be exposed to production economics, which could be implied from a superficial study of Table 10.

The number and the type of electives offered also differ widely among the departments. In many cases this variation in the compulsory and elective courses probably reflects:

- In part what the individual department believes is important in producing well-rounded agricultural economists who can operate effectively in the outside world.
- But also probably the skills and specialization/interest of the academic staff in the departments.

While most departments give an equal number of contact hours to each of the core courses, a few tend to allocate more number of hours to some courses than others. For example, Sokoine devotes twice the number of contact hours to statistics than it does to other courses.

The different combinations of compulsory and elective courses and the numbers of hours devoted to each course as can be seen from Table 10 vary widely. Consequently, it is not surprising that the total numbers of hours devoted to course work also vary widely from one department to another. This certainly is likely to have significant implications in terms of the potential and actual variation of the quality of M.Sc. graduates in agricultural economics from one university to another in the region. It was not possible to examine this issue but it is apparent that, if there is to be a strategy implemented for building up the capacity of agricultural economics in the region, considerable thought will need to be given to the curricula in the different universities. Points that will need to be addressed and taken into account are as follows:

- Reviewing and rationalization of the courses offered at the M.Sc. level will be necessary to ensure that the students have a strong grounding in the theory/methods relating to agricultural economics, while at the same time producing graduates that can perform satisfactorily in the types of jobs they are being groomed for in the market place.
- Because of the diversity of jobs suitable for agricultural economists in the market place, a question that may be legitimately asked is whether or not a possible initiative on building capacity should concentrate on one or more market niches. For example, one concern of IFPRI has been deficiencies in the research proposals being submitted for funding under their 2020 Vision Network. Another example is the planned initiative of the University of Pretoria in collaboration with a number of agricultural economic and economic related departments in the Eastern and Southern African Region to initiate an M.Sc. in Environment and Resource Economics in response to what is perceived to be an area that is not receiving the attention it deserves (see Appendix B10.2). Our considered judgement in terms of the initiative we are proposing is that it probably would not be desirable to address one or two market niches but rather the emphasis should be placed on providing all students with a strong grounding in theory and with techniques relevant to agricultural economics and to add elective courses that can help "tailor make" them to specific types of jobs. While this type of approach carries an inherent risk (i.e., "jack of all trades and master of none") we believe it is the most realistic approach especially given that:
  - **T** Many students do not know what their career goals necessarily are at the beginning of their postgraduate program.
  - **T** That student thesis efforts which are started well after course work is underway can reflect the type of area and work they are interested in pursuing — in other words it provides an opportunity for specialization.
  - **T** There is often no course work at the Ph.D. level (see Section 4.6) and this might be the last they will get if they decide to go on to do a Ph.D., which often is, as a result, highly specialized.
- If a proposal for improving the agricultural capacity in the region is approved it will be important to exploit the potential complementarities of agricultural economic and economic departments in terms of accessing skills and exploiting the comparative advantages of each type of department as far as teaching courses is concerned, something that is currently rarely done, particularly at the postgraduate level (see Section 4.2).

## 4.6 PH.D. DEGREES

Ph.D.s in agricultural economics, and to some extent in economics, are currently more of an exception rather than the norm in most universities in the region. Most institutions have regulations permitting such degrees (e.g., even Jomo Kenyatta that has no department of agricultural economics or economics) and in fact most departments have had at least one Ph.D. graduate in the last 10 years. Regulations usually indicate that only a dissertation is necessary but in practice there is now a tendency for departments of agricultural economics and economics to encourage some course work via "sandwich" type arrangements with other universities. This is particularly the case when the Ph.D. candidates are faculty members of their own departments (e.g., particularly in agricultural economics related departments at Egerton, Nairobi, Sokoine, and Zimbabwe, and economics associated departments at Nairobi and Dar es Salaam) (see Tables 5a and 5b). The case of Dar es Salaam is particularly interesting in that over the years they have developed a close relationship with Sweden and specifically with Lund University, where many of their faculty have taken "sandwich" type course work. Another interesting example is the case of Makerere where a historically strong relationship with Ohio State University (OSU) resulted in faculty from that university volunteering their time to come and give short concentrated courses to incumbent faculty members without Ph.D.s. These faculty members are now registered for Makerere Ph.D.s (see Appendix B8.4).[23]

In fact, most of the Ph.D.s granted to date in agricultural economics by universities in the region have been awarded to faculty members of the departments. The same applies in general for the economics departments in the region, although Dar es Salaam in particular has awarded a number of Ph.D.s in economics to individuals who are not faculty members. In such cases, however, they have not usually benefitted from the "sandwich" course type exposure.

During the field visits we encountered little opposition to the principle of introducing course work as a required component of Ph.D.s although it was recognized that this would require changing university regulations, which can be a cumbersome and lengthy procedure.[24] In fact, there was a great deal of unanimity that this would be highly desirable. Concerns, where they exist, are more likely to pertain to the modus operandi for accomplishing this. Thus, there appears to be complete agreement with the principle of the course work component in the Ph.D. economic initiative in the process of being launched by AERC (see Appendix D2.4). We are confident, given the need for faculty in the relatively small departments of agricultural economics in the region, to have knowledge about a number of areas,

[23] The disadvantage of the Makerere approach compared with the Dar es Salaam model was that although in the former case the potential exists for tailor-made courses, there has been no course assessment, no other "students" are involved thus inhibiting the creation of a competitive environment, and it is difficult for faculty involved in taking the courses to be single-minded in their approach because of being on their "home turf" and thus having other demands on their time.

[24] In fact, Moi already requires course work and Pretoria requires it where there are perceived student deficiencies.

that there would be widespread support for the course work plus dissertation approach to Ph.D.s in agricultural economics providing a way can be found for operationalizing it.

Pretoria appears to be becoming a particularly popular place for agricultural economists who, in mid-career, register for Ph.D.s on a part time basis. We believe it also has the potential capacity to provide "sandwich" type courses for faculty registered for Ph.D.s in their own universities (see Appendix B10.2).

Finally, one area of concern that was voiced during the field trips was the length of time individuals registered for Ph.D.s took to complete the requirements. As a result Nairobi is now implementing a monitoring system for Ph.D. candidates requiring a regular report to be produced on their progress.

## 4.7 IMPLICATIONS

From the information presented in this chapter, there are a number of implications for improving the capacity relating to agricultural economics in the region. Four of them are as follows:

- The trend towards having a more demand-responsive approach to the design and implementation of courses and degrees relating to agricultural economics should be encouraged.
- There are important niches for degrees relating to agricultural economics at the B.Sc., M.Sc, and Ph.D. levels.
- There is a need to review and to rationalize the courses and their content at the M.Sc. level.
- Cost effective ways need to be identified and implemented to upgrade, where necessary, faculty to the Ph.D. level through, for example, sandwich courses in addition to a dissertation.

# CHAPTER 5 — FACILITIES/SUPPORT SYSTEMS FOR DEGREES

## 5.1 INTRODUCTION

Student populations in most universities have been growing rapidly in recent years under pressure from government and/or as a response to the increasing demand for higher education. Despite this growth, there has usually not been any substantial investment in the infrastructures of most universities although the actual state often appears to be influenced by how strong and forward looking is the university leadership and administration. Unfortunately, facilities have often remained at the same level or deteriorated over years due to intensive use and lack of maintenance, because of severe financial constraints, which have also inhibited replacement and/or upgrading. In the following sections, we summarise some of the observations we have on the infrastructure, equipment and facilities in the departments and universities we visited during the field trips. However, it should be noted that time did not permit a detailed comparative analysis/evaluation of the situation at different universities in the region.

## 5.2 BUILDINGS AND LECTURE ROOMS/LABS

The increase in student population has put tremendous pressure on the infrastructure of some universities. Unfortunately, lecture rooms, library, and student accommodation capacities have changed little. This is a common problem in most of the universities we visited. Because of the student population pressure, there are several examples where buildings not meant for lectures are now being turned into lecture rooms. For example, assembly and dining halls have been turned into lecture rooms without being modified to be able to provide their new functions satisfactorily.

Generally, particularly in economics departments, facilities are inadequate to handle the current sizes of some of the classes. Teaching facilities designed for classes of about 60 are now accommodating two to three times more. We are told that in some cases students have to stand outside the lecture rooms — similar to a political rally situation! One wonders what happens if it is raining! There are cases where students do not have enough chairs to sit on or tables to use for writing (e.g., Rwanda). Students sometimes spend considerable amounts of valuable lecture time looking for chairs from other lecture rooms. Even where chairs are available, they are often in a bad state and are usually not repaired when they become unusable. One of the department heads commented: "writing on blackboards when you have more than 500 students is a nightmare." Unfortunately, support equipment such as projectors, power point systems, or even microphones for use by the lecturers, are rarely available.

## 5.3 EQUIPMENT

Equipment availability varies significantly from one university to another, and is a major determinant of potential productivity and quality of both research and teaching. For example, while we found conditions are a lot better in Sokoine, where almost every staff member has a computer and internet facility, the situation is a lot worse in Alemaya and Kenyatta, where most staff members have very inadequate access to such services. In fact, in the words of one of the lecturers in Sokoine: "we are not complaining as far as equipment is concerned. For every project that we submit, we normally include in the budget, items such as computers, printers, etc."

There is a wide variation between economics and agricultural economics departments. Staff in Category B universities have, in most cases, better access to equipment — thanks to AERC assistance. On the other hand Category A university economics departments are usually not as well endowed in terms of equipment as the Category B economics departments.

In agricultural economics departments, much of the equipment has often been provided through project funds such as the ARTP in Ethiopia, United States Agency for International Development (USAID), etc. Other project funds for equipment purchases have resulted from initiatives of individual staff members. Access to equipment also varies significantly among staff members in the same department, possibly partly a reflection of how successful individuals have been in attracting project funding. Finding funding to pay for software licenses is a major issue in some departments (e.g., Nairobi Department of Agricultural Economics).

## 5.4 ACCESS TO LITERATURE

Access to current literature is still a problem in the region in spite of significant initiatives by the RF. In contrast to the library at Bunda which, given the financial exigencies in the region, is in surprisingly good shape, visits by one of us to the libraries, on an earlier visit (Ekwamu et al. 1998) at Makerere,[25] and particularly Egerton and Moi, indicated very major shortcomings in terms of materials. Journal subscriptions at Egerton and Moi had become basically non-existent,[26] while the vast majority of books were pre-1990 — making them virtually useless in terms of supporting quality research and postgraduate training. The situation at Makerere appeared only marginally better. A 1998 visit with the Periodicals Librarian revealed that the only CD-Rom abstract series they had at that time in the agricultural and forestry areas were Treecd (1939–98) and CARIS, which is produced by the Special Program for African Agricultural Research (SPAAR) (1996). Their periodical budget for the whole university at that time

[25] Apparently the situation at the library in the University of Zimbabwe was very similar to that at Makerere.

[26] The downward trend in the number of journals subscribed by African universities over the last 20 years is well illustrated by data in Abegaz and Levey (1996).

amounted to about US$90,000 per year while the periodicals requested totaled US$164,000. In the Faculty of Agriculture and Forestry, the journals requested in 1998 numbered about 50 with a total cost of about US$19,000. Given the financial constraints, the faculty considered themselves lucky if they could get US$10,000 worth of subscriptions.

The RF provided funding to the Albert R. Mann Library at Cornell University for developing The Essential Electronic Agricultural Library (TEEAL) project or Library in a Box. The Library in a Box provides:

- Access to some of the most important journals in the major agricultural fields including agricultural economics, natural resources, and the environment.
- Complete text images of 130 of the most important scholarly journals in the world (1993–96) consisting of 650,000 pages on compact disks.
- Annual updates for the 130 journals, released one year after publication.
- Plans to add more titles each year.
- Provision of index, text, and image software.

The CD-Rom library started being distributed in the region in 1999 and is a stand-alone system, which uses a standard microcomputer, and laser printer. The TEEAL is available for US$10,000 for institutions in the region which is 2.7 percent of the actual costs of the subscriptions to the 130 journals for the four years (1993–96). Annual updates totalling 160,000 pages a year are being made available at a cost of $3,500 per year. Publishers have waived copyright royalties for producing this system for deserving institutions in low-income countries.

Undoubtedly, this initiative is likely to be very important in helping improve access to current literature in agricultural economic-related fields. However, it does appear at the moment that access to the TEEAL differs widely in the region. For example, Alemaya has purchased it using their World Bank ARTP funds, but funds for purchasing it at the Kabete campus of Nairobi, do not appear to have been made available. In any effort to improve the capacity of agricultural economics in the region, some priority will need to be given to ensuring that all agricultural economic-related departments have access to this important literature source.

Some economic departments have benefited greatly from funds provided under the AERC for purchasing economic literature materials. For example, Zimbabwe, a Category B department in AERC terminology has developed a library and employed a librarian.

## 5.5 INTERNET CONNECTIVITY

Access to the internet is often limited. In addition, computer access is limited and those available often have to be shared by both staff and students. In universities such as Kenyatta and Rwanda, there

is a computer room with few terminals that have to be shared by students and staff. In some cases people have to line up to wait for their turn to access the internet.

However, in cases where the university has received external funding or departments have received funds from individual staff external initiatives, there has been some improvement. In such cases, staff members have access to internet facilities and there is usually a computer room for the postgraduate students with access to internet facilities as well. Another important initiative of the RF in the region has been the Information and Connectivity Project, which with funds from the Forum Program (Ekwamu et al. 1998), has helped improve internet access and provided literature databases in selected institutions (i.e., Makerere, Bunda, and Zimbabwe). Costs on each campus have ranged from about US$30,000 to US$40,000 and generally consist of the following components:

- Two Pentium microcomputers complete with network cards, CD-Rom and modem (28.8 or 33.6 bps) capacity, and associated uninterrupted power sources (UPS).
- A laser printer.
- Installation costs relating to cabling, telephones, network, and Internet.
- Running costs associated with leasing lines, and telephone and internet connection charges.
- Purchase of relevant CD-based abstract systems (e.g., CAB, TROPAG&RURAL, Agricultural and Biological Index).
- Document delivery (i.e., US$4,000).
- A contingency component.

It is important to note, because of university financial constraints, that the last three/four items constitute costs that will probably need to be met by external funding on an annual basis for the foreseeable future.

The IFPRI 2020 Vision Network and ECAPAPA have also provided some support in the Internet connectivity area. However, once again, as with the issue of access to professional literature, Internet connectivity will be an important issue in terms of improving the capacity of agricultural economic-related departments in the region, especially given the increasing quantity of professional materials and data that can be obtained via web pages.

## 5.6 IMPLICATION

The obvious implication arising from the material presented in this chapter is that if the capacity relating to agricultural economics in the region is to be improved then it will be necessary to use a systematic and locational specific approach to enhancing the accessibility of staff and postgraduate students to computer hardware and software, internet connectivity and professional literature (e.g., by means of the TEEAL system) in agricultural economic-related departments in the region.

# CHAPTER 6 — MARKET FOR DEGREE HOLDERS

## 6.1 INTRODUCTION

An important issue in considering whether or not to implement a strategy to improve the capacity in agricultural economics is to ascertain whether there is indeed a demand for more agricultural economists. Do employment opportunities exist for those who graduate in agricultural economics? What about the demand for those who obtain masters and Ph.D. qualifications in agricultural economics? How does the demand for agricultural economists compare with those for other types of economists? In this chapter, we make some assessment based on the discussions with the potential employers we visited. We look at the demand and also try to relate it to the supply of agricultural economists in the region. However, because of time limitations relating to our assignment, our assessment is impressionistic rather than quantitative and should therefore not be considered as definitive.

However, before examining this further, we were given some information about the demand for agricultural economists in two countries that resulted from recent manpower studies. These were:

- One recent manpower study done by Voluntary Overseas Cooperative Assistance (VOCA) in Ethiopia (President of Alemaya University, Personal Communication) indicated that currently there are 994 agricultural economists employed by 34 agencies in Ethiopia. However, the reported current need for agricultural economists was 2,580 while the number needed to fill the current five-year plan was estimated to be 2,635.
- Another recent manpower study done by the World Bank and the Government in Mozambique (Head of the Agricultural Economics Section, Eduardo Mondlane University, Personal Communication) has estimated the demand for agricultural economists to be 2,000 for the first degree and 500 for the second and third degrees.

It is obvious that, given the figures for the supply of agricultural economists presented in Tables 8a and 8b, and 9a and 9b, there are major shortages of agricultural economists in both countries. It was our distinct impression that substantial gaps between the supply and demand for agricultural economists are also likely to exist in other countries in the region.

General impressions from discussions during the field visits are that the market for agricultural economists is still very good and the demand may even be increasing over time. In fact, the supply of agricultural economists according to many of those we talked to is insufficient to meet the demand. Indeed in some countries (e.g., Malawi and Mozambique) we were told that students studying agricultural economics were often employed before they completed their degrees. This is particularly a problem at the masters' degree level in Bunda. In Mozambique where there is no B.Sc. degree in agricultural economics but only a B.A. equivalent in economics, many of the students take longer than the expected five years to complete their degree because they are already working as economists

before completing the requirements for the degree.[27] Also, one prominent agricultural economist in the region in discussions with us expressed the opinion that if the quality in terms of training agricultural economists improved, this would also increase demands for their services.

In the following sections, we look at some of the major employers of agricultural economists — namely the public sector, policy research institutes, the commercial private sector, and the nonprofit private sector. Unfortunately, time did not permit discussions with all of them, so some of the information presented represents opinions formed as a result of discussions with third parties.

## 6.2 PUBLIC SECTOR

Ministries of Agriculture, Finance, and Planning recruit a number of agricultural economists. Many NARSs — e.g., the Ugandan National Agricultural Research Organization (NARO), the Ethiopian Agricultural Research Organization (EARO), and the Rwandan Institut des Sciences Agronomique du Rwanda (ISAR) — have set up departments/units for socioeconomic analysis. Discussions with officials in these publicly-funded institutions revealed that even when they are recruited, economists usually do not stay long, and often soon leave for "greener pastures" where conditions of service are much more favourable. The fact that such opportunities are available is a clear indicator that the demand for agricultural economists still outstrips the supply.[28] The deficit in agricultural economists was explicitly highlighted in discussions with the Director General of EARO who indicated that as a result of an extensive research prioritization exercise it was concluded the organization needed 45 agricultural economists but at the moment there are only 21 of whom only three have Ph.D.s. Discussions with the Director of Planning, Monitoring, and Evaluation in the NARO; with the Head of Planning, Monitoring, and Evaluation Department in the ISAR; and with an agricultural economist in the Kenyan Agricultural Research Institute (KARI), all revealed similar problems, namely shortage of agricultural economists and inability to retain those that are employed.

Employment opportunities tend to increase with an increase in qualifications and experience. University employment often appears to be a stepping-stone to employment on better terms of service outside academia. As their profiles or visibility rise in the universities (i.e., are promoted to higher ranks), so do their opportunity costs. For example, in Makerere, most of the senior-level staff from the Agricultural Economics Department left the university in the late 1980s to join international organizations

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[27] In fact, there sometimes appears to be little incentive to complete the degree since the salary increment for its completion is often relatively low.

[28] One criticism we heard in a discussion with a representative with one NARS was that another reason why some agricultural economists do not stay in such systems is that they are not always treated very well. Instead of having a unique identity they are treated as "appendages" in playing service-type roles for technical scientists (e.g., commodity teams). The individual expressing this view believed it would be better as far as the "self-respect and dignity of the individual is concerned" for agricultural economists to be associated within a socioeconomic unit or section rather than being administratively dispersed.

— e.g., the United Nations Development Program (UNDP) — and quasi-autonomous government organizations which offer better pay and benefits.

Most governments in the region are embracing the fight against poverty through support from international organizations like the World Bank. Increasingly, agriculture is being targeted as an important means of reducing poverty and hence the need for agricultural economists to identify, implement, and monitor strategies to reduce poverty in an environmentally friendly manner is bound to increase.

## 6.3 POLICY RESEARCH INSTITUTES

Economic policy research centers have become popular in recent years largely as a result of the SAPs and associated market liberalization. Given the importance of the agricultural sector in the economies of the region, agricultural economists feature prominently in the staffing of those institutes (e.g., EDRI in Ethiopia, IPAR and KIPPRA in Kenya, APRU and CSR in Malawi, ERSF, REPOA and ERB in Tanzania, and EPRC in Uganda).[29] These institutes, which are usually partially funded by government but rely heavily on donor and competitive grant funding, vary in the degree of independence relative to government. For example, EDRI and KIPPRA are closely associated with government while the others operate somewhat more independently. Such policy research institutes usually have relatively small numbers of research staff but because of their mandates and their strategic position in potentially being able to influence government policy, they do have considerable clout. As a result the research staff in such institutes are often some of the most capable agricultural economists in the country, many of whom have joined the institutes after some initial work experience in academia. However, in aggregate terms the economic policy-oriented institutes do not represent a large potential employer of agricultural economists, although they are likely to attract some of the brightest and best.

## 6.4 PRIVATE SECTOR: COMMERCIAL

As agriculture becomes more market oriented or transformed into commercial enterprises, agribusiness will become increasingly important as an employer of agricultural economists.[30] Commercialization of agriculture issues relating to distribution and marketing of inputs and marketing of

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[29] The definitions for the acronyms are as follows: Economic Development Research Institute (EDRI), Institute of Policy Analysis and Research (IPAR), Kenya Institute for Public Policy Research and Analysis (KIPPRA), Center for Social Research (CSR), Economic and Social Research Foundation (ERSF), Research Poverty Alleviation program (REPOA), Economic Research Bureau (ERB), and the Economic Policy Research Center (EPRC).

[30] The Department of Agricultural Economics and Agribusiness at Makerere has recognized the importance of addressing the needs of agribusiness employers by planning to set up an Advisory Board consisting of representation from the private sector for its agribusiness masters' degree (see Section 4.4).

products becomes very important. The credit market is also another major field for potential employment. All these functions require some training in agricultural economics. As input and product markets play increasingly significant roles in the agriculture sector, so will the roles of the agricultural economists be enhanced. Such trends in employment opportunities for agricultural economists have been universally demonstrated in high-income countries where the agriculture sector contributes much less to the gross domestic product (GDP). We would expect the same trends to be demonstrated and perhaps enhanced in the case of countries in the region where agriculture contributes much more significantly to the GDP.

## 6.5 PRIVATE SECTOR: NONPROFIT DEVELOPMENTAL

Because NGOs, CBOs, cooperatives, and of course farmers' associations, are often associated with communities, that often earn their livelihoods from agriculture, it is not surprising that there is a demand of agricultural economists. Discussions during our visits clearly show that graduates in agricultural economics are in high demand in such organizations, particularly NGOs and CBOs. These organizations also pay well. For example, in Egerton and Bunda, a number of students get employed before they even finish their degree programs. This often takes place at the time when students are collecting data for their masters' theses. In the process, they become attached to organizations that end up employing them on a permanent basis after completing their studies, and unfortunately sometimes before, as far as Bunda is concerned. The continuing significance of NGOs and CBOs and emerging farmer-led associations are likely to become even more important with the decline in public-sector led activities, greater decentralization of activities and decisionmaking, and increased commercialization of the agricultural sector. This will continue to contribute to increasing the demand for agricultural economists. As an example, the demand for savings and credit systems is growing with the increasing monetization of the economies. Nonprofit organizations along with commercial banks are being encouraged to participate in the implementation of such initiatives. This will increase the demand for agricultural economists as field officers because their training is well suited for performing such assignments.

## 6.6 IMPLICATIONS

There are a couple of important implications arising out of our superficial and anecdotal review of the demand for agricultural economists. These are as follows:

- There does appear to be a big unsaturated demand for agricultural economists, in most if not all countries that is not currently adequately being met. This is apparent if one compares the information presented in this chapter with estimates of supply given in Section 4.2.
- There is considerable diversity in the types of jobs that agricultural economists are being asked to undertake which is important to take into account in the design and implementation of relevant training programs. In Table 11, we make a crude attempt to classify the types of jobs in terms of

relevancy of the different levels of agricultural economics — i.e., micro, meso (input and product markets and services), and macro). Although we make no claims to be absolutely correct about the rankings in the table (i.e., they are subjective evaluations), they give rise to a number of implications. Some of these are as follows:

- Micro- and meso-level types of economics are particularly important areas of training as far as agricultural economics is concerned.
- Meso-level training (i.e., in subjects relating to agribusiness) becomes particularly important with market liberalization and commercialization of agriculture.[31]
- However, the trend towards decentralization, empowerment of local people, and concerns about sustainability and adoption/impact assessment increases the significance of the micro level and the need for training in types of areas that perhaps have not been considered "mainstream" agricultural economics both for research- and developmental-type occupations (e.g., participatory/system/sustainable livelihood approaches, natural resource economics, adoption, and impact assessment).[32] Indeed, donor agencies — e.g., USAID, Department for International Development (DFID) — often run short courses or provide funding for these types of courses, particularly in participatory type approaches, because the types of projects they are providing funding for require application of such methods. The RF-sponsored Forum Program, focusing on research, is one example of such as initiative.[33] Should such training therefore not be formalized to a greater extent within undergraduate and postgraduate programs? Indeed we believe the more social science-oriented departments have a comparative advantage in providing such training. Given such training is likely to be required by both technical and social scientists one possibility would be for a donor to provide funding for an intensive short course (e.g., outside ordinary semester time) at the postgraduate level for all graduate students in the faculties of agriculture at each university. Some universities would be able to provide such training because of expertise already resident in agricultural economic related departments (e.g., Bunda, Sokoine, and Zimbabwe).[34]

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[31] In many countries, given the poor development of physical and social infrastructure and not complete market liberalization, issues of how to detail with partial or complete market failure might be important topics to include in training programs.

[32] In fact, one person we talked to in a NARS bemoaned the fact although he received a strong training at the postgraduate level in quantitative techniques and neoclassical economics it did not prepare him well for the types of assignments he was expected to do in the national research system which required the application of participatory/system type approaches, monitoring and evaluation, and adoption and impact assessment studies.

[33] In terms of a developmental oriented initiative, an example of where such techniques will be very important are the decentralization of developmental initiatives to the local level as is being done with reference to the zonal outreach centers in Uganda.

[34] Such expertise also exists at Alemaya in the form of another person formerly associated with the Department of Agricultural Economics.

Thus, there are major challenges in mounting/implementing training programs that satisfy the diverse array of jobs for which agricultural economists are required — a range we believe is much wider than that commanded by macroeconomists which to date has been a major focus of AERC (see Appendix D2). This is a particularly challenging issue for the smaller agricultural economics departments with limited numbers of faculty and postgraduate students.

# CHAPTER 7 — LINKAGES

## 7.1 INTRODUCTION

How do university agricultural economics departments relate or link with other institutions such as government, NARS, NGOs, CBOs and the private sector? Also important is the relationship between agricultural economics and economics departments in the same university or in the same country. Discussions with people not only from the universities but also a sample of other types of inistitutions revealed a number of linkages, although the following discussion indicates such linkages are often not as strong as would be desirable.

We believe creating and nurturing linkages between university agricultural economic departments and other academic departments and research and developmental organizations outside academia are important for a number of reasons.[35] Three of these are helping to do the following:

- Ensure that the types and format of courses offered and taught are more demand-driven by what is required in the market place for agricultural economists.
- Provide the means for using current and topical data and information for illustrative purposes in teaching and research activities.
- Create not only recognition and credibility for agricultural economists in academia but also potentially optimizing the utilization of their skills in contributing to enhancing the efficiency, productivity, and sustainability of the agricultural sector and the economy as a whole.

## 7.2 BETWEEN AGRICULTURAL ECONOMIC AND ECONOMIC-RELATED DEPARTMENTS

Often, as we indicated earlier, there is very little collaboration at the departmental level between the agricultural economics and economics departments in the universities we visited. An interesting example is at Makerere when the Director of the Institute of Economics proposed the two departments merge, although they are located in different faculties. Not surprisingly, this created considerable controversy and the proposal was immediately shelved.

As indicated earlier (see Section 4.2) in most universities where the two departments share the same campus or are located close to each other, courses that could be better taught by one side are nonetheless taught separately. Collaborative arrangements do sometimes occur but rarely are these relationships optimized. For example:

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[35] Indeed multiple linkages are likely to be increasingly important given that, with market liberalization and down sizing of the public sector, there are an increasing array of agencies and institutions (i.e., developmental "actors" or stakeholders) influencing agricultural development.

- The Department of Agricultural Economics and Agribusiness at Makerere helps teach the option in agricultural economics in the B.A. degree in economics but macroeconomic and econometric master level courses in the department are not taught by the Institute of Economics.[36]
- A somewhat analogous situation exists at Nairobi. A staff member of the Department of Agricultural Economics teaches a course in agricultural economics at the undergraduate level in the Economics Department but once again no collaboration takes place in courses at the postgraduate level.
- At Egerton until recently, the agricultural economics and economics disciplines were located in the same department. They have now split up and are located in different faculties but still collaborate in some courses at both the undergraduate and postgraduate level.

However, in other places, there is no collaboration between departments, for example, Zimbabwe and Eduardo Mondlane, although in the case of the former collaboration did exist back in the 1980s and in the case of the latter the head of the agricultural economics group is listed as a part time lecturer in the Economics Department. However, no collaboration is at the moment anticipated in Eduardo Mondlane by the Economics Department in the proposed masters' degree in rural development, which is scheduled to start in August 2001.

There is, therefore, in many places obvious potential for greater collaboration between departments of agricultural economics and economics. As indicated earlier (see Section 4.2), three compelling reasons for exploiting such collaboration/linkages particularly at the postgraduate level (i.e., courses at the masters' level) are to:

- Avoid duplication of course work.
- Have the course taught by the department that has a comparative advantage in the specific subject thus potentially enhancing the quality of the course.
- Improve efficiency of course work at the masters' level by reducing overheads per student as a result of having larger classes through combining agricultural economics and economic students in one class.

## 7.3 WITH GOVERNMENT

Linkages between agricultural economics departments and governmental agencies do not appear to be very robust in many universities we visited. A notable exception is the case of Sokoine where we found that the agricultural economics department faculty are often consulted in matters relating to agricultural policies in the country. This has resulted in recognition for the department and individual staff members who feel happy and honored that government recognizes their skills and expertise and, as a result, provides them with types of professional challenges that they would not get elsewhere (see Section 8.6). Such linkages also bring in money to the department through government-commissioned

[36] Instead, an IFPRI-employed postdoctoral scholar is currently teaching the econometric course offered in the Department of Agricultural Economics and Agribusiness.

studies. Sokoine also provides significant services to the whole of the SADC region through developing training modules and staff being engaged in conducting training workshops for governments in the region. With increasing emphasis by the donor community on reducing poverty, agricultural economists in academia could potentially become more involved with government in designing, implementing, and evaluating strategies to fulfil this goal.

## 7.4 WITH NATIONAL AGRICULTURAL RESEARCH SYSTEMS (NARS)

The World Bank and other lending and donor agencies operating in the East and Southern African Region have attempted to encourage development of linkages between universities and NARS through competitive Agriculture Research Fund (ARF) grant systems (e.g., Kenya, Tanzania). Under such schemes, multidisciplinary research is usually encouraged, as are partnerships between academic staff and NARS, and even development-oriented staff. However, these have not always been as successful as hoped for. Reasons for this are:

- Long delays in reaching decisions on grant requests submitted (e.g., Kenya).
- Submissions by agricultural economists do not always appear to have received equitable treatment relative to the more technical scientists (e.g., Tanzania).
- Partnerships and collaboration often result from personal relationships rather than being forged through formal institutional relationships — consequently when such funding ceases cooperation between the different parties also tends to disappear.

Nevertheless, the concept is good and the approach, we believe, should be encouraged since the issues/problems mentioned above reflect solvable administrative problems rather than defective conceptualisation per se.

There are also some situations where the linkage transcends collaborative research projects. For example:

- There is a strong link between Alemaya and the EARO. Obviously, a contributing factor is that many staff in EARO earlier received training at Alemaya. Also, until recently Alemaya had an agricultural research station, which has now been incorporated into EARO. Currently, the relationship is particularly strong because of the World Bank/IFAD-financed ARTP, for which funds are being provided for research in both EARO and the university, which is overseen by a research committee consisting of both the NARS and university representatives. Funds are also being provided for training (i.e., young Ethiopians and for technical assistance at the university while they are away). Funds are also being allocated to infrastructure renovation/rehabilitation.
- There is a memorandum of understanding (MOU) between the Ugandan NARO and Makerere, which allows for collaboration in research activities and for NARO staff to teach courses (i.e., up to 20 percent of their time can be devoted to teaching) and to help supervise postgraduate students from

Makerere. This, in fact, occurs to some extent although joint research activities appear to be confined to situations where NARO does not have the expertise.

## 7.5 WITH RESEARCH POLICY CENTERS

Generally, there is no formal or institutional link between the research centers and agricultural economics departments we visited. Such links when they exist are usually based on personal initiatives. In fact, many of the staff in the centers originally were in, or studied in, university agricultural economic departments. Thus, collaborative research projects do sometimes exist and staff from the centers sometimes teach in departments. There are also situations in which a research center may be commissioned to do some work in which they may not have expertise. In such cases, they sometimes co-opt or sub-contract staff members from agricultural economics departments to do the work. This can also happen if a department is faced with a similar situation.

## 7.6 WITH THE PRIVATE SECTOR

Often there appears to be much stronger linkages with the private sector, both profit and nonprofit, resulting from consultancy opportunities which for many agricultural economists in academia, are a significant supplementary income source. Examples were found in places such as Sokoine, Egerton, Nairobi (Kabete), and Alemaya. In Alemaya , for instance, the university has developed a very strong developmental linkage with the surrounding local communities and is involved in joint programs with the NGOs. They engage in activities ranging from farming systems related activities to provision of health care and school facilities. Such linkages with NGOs, CBOs, and other organizations/institutions in the private sector are likely to continue to intensify as the momentum to a market-oriented economy increases.

## 7.7 OTHER LINKAGES

We did not obtain a detailed list of all the linkages that agricultural economics departments have with other institutions/organizations. However, in some cases they are numerous although it was not possible to assess how active and useful they are. For example, we were given a memorandum by the Agricultural Economics and Extension Department at Zimbabwe that indicated they had nine different link agreements in the year 2000, covering a diverse range of activities relating to training, research, and development.

One linkage perhaps we should mention explicitly that does not come under any of the earlier sub-sections relate to linkages agricultural economics departments have with related departments in other universities, often outside the African continent. These often result from one or more of the following initiatives/activities:

- Earlier technical assistance programs (e.g., Ohio State University with Makerere).
- Staff members earlier being trained at such institutions (e.g., Zimbabwe with Michigan State University).
- Donors providing funds for developing specific relationships (e.g., Sweden for facilitating "sandwich" courses at Lund University for economic faculty Ph.D. candidates at Dar es Salaam).

These relationships can be very important to agricultural economic departments in the region through helping them gain access to informational, logistical, and training support based on good will developed on past interaction.

## 7.8 IMPLICATION

Linkages are important in creating a department that is dynamic, productive, progressive, current, and outward looking. We believe that any initiative that is implemented to improve agricultural economics capacity in the region should, whenever relevant, create conditions that create/ nurture/facilitate such linkages.

# CHAPTER 8 — THE WAY FORWARD

## 8.1 INTRODUCTION

In this final chapter, we first consider the issues that need addressing if the capacity with respect to agricultural economics is to be improved in a manner that is sustainable. We then evaluate the pros and cons of four different approaches to improving capacity and conclude that a slightly modified AERC model is the approach most likely to succeed. Following this, there is a discussion on the details of the proposed model and the chapter finishes with a list of possible ways of creating a favorable working environment that will be critically important in encouraging retention of senior/experienced faculty in the university system.

## 8.2 THE ISSUES THAT NEED ADDRESSING

We have come to the conclusion that the issue of improving agricultural economics capacity in the region comes down to:

- Producing well-trained agricultural economists with the necessary analytical skills and expertise to undertake the diverse tasks expected of them in the job market.
- Satisfying the demand for agricultural economists in different and diverse occupations in the public and private sectors: interdisciplinary settings (i.e., research and development), disciplinary research (e.g., agricultural policy research), and developmental activities (e.g., with private sector profit and nonprofit organizations/institutions).
- Providing products and services that fulfil the objectives of the institution/organization/firm and contribute to the development of the agricultural sector and the economy as a whole.

Based on the analysis in, and the implications given at the end of, each of the preceding six chapters, a number of ingredients are required, but in aggregate these can be summarized as the need to have:

- Highly motivated faculty in university agricultural economics departments that are well trained, continue to develop professionally, and operate in an institutional setting that is supportive and has sufficient incentives to encourage them to stay in academia as they become more experienced and senior in rank.
- Facilities and equipment to improve and maintain the productivity of agricultural economics faculty in teaching, research, and other activities.
- Relevant and good quality agricultural economics degrees and courses.
- Good quality students to take the agricultural economic-related courses and degrees at the B.Sc., M.Sc., and Ph.D. levels.

In looking at the situation in the region, it is obvious that external help is required to facilitate attainment of the above, but there are at the same time issues that need to be addressed which go beyond what external help can provide. These exogenous factors, as far as external help is concerned, for example, the presence of a facilitative institutional environment including incentives, will be critically important in determining whether or not it will be possible to improve agricultural economics capacity in the region in a manner that is sustainable.

## 8.3 POSSIBLE WAYS OF IMPROVING AGRICULTURAL ECONOMICS CAPACITY AND THEIR RELEVANCY

In thinking about possible ways of increasing agricultural economics capacity within the region, the alternatives appear to consist of one or a combination of the following four approaches/models:[37]

- *Individual Department (or Going It Alone) Model* — where each department uses its own initiative to improve agricultural economics capacity.[38]
- *Twinning Model* — where a department develops a strong relationship with an institution outside the continent, often one with which it has had a historical linkage (see Section 7.7).
- *Center of Excellence Model*[39] — where donors focus attention on developing the infrastructure and training programs at one institution and use it as a regional training institution.
- *African Economic Research Consortium (AERC) Model* — in which the departments in the region are collectively empowered to make and implement decisions on improving the economics capacity at the different institutions in the region. In this model, it is anticipated that AERC would extend its mandate to explicitly include capacity building in agricultural economics.

In Table 12, we present a summary of our assessment of the potential merits, advantages, disadvantages, risks, and potential benefits associated with each of these models. This assessment was arrived at after extensive discussions and consultations during the field trips. As a result we believe that for the region as a whole, the model that has the best chance of success in building agricultural economics capacity in a sustainable manner is that used by AERC. We recognize that this conclusion is at variance with that in an earlier report on issues relating to agricultural economics capacity in the region

[37] We also briefly considered the Distance Learning Model but decided, for a number of reasons, it was not at this time practical, as far as being a stand-alone model is concerned. However, distance-learning initiatives could conceivably be important components in supporting implementation of other models.

[38] Of course, a department cannot do much alone without the support of the faculty and university administration in the institution within which it is located.

[39] Or in terms of the terminology used by the African Capacity Building Fund (ACBF), equivalent to its Economic Policy Management Program (EPMP) that has been introduced in a number of countries in the region (e.g., the Institute of Economics at Makerere).

(Norman 1998). However, on reflection we believe that an earlier bias towards the Center of Excellence model did not sufficiently take into account the risk attached to focusing all efforts on one location in a region subject to rapid economic and political changes, and to the negative feelings fuelled from one institution receiving concentrated donor input, in spite of some benefits accruing to other countries in the region via well-trained agricultural economists. Therefore, in the next section, we focus on extending the AERC model, with some relatively minor modifications, to help improve the agricultural economics capacity in the region. For those not familiar with the AERC model which, to date, has primarily focussed on the macroeconomic area, we have included in an appendix a short description of it (see Section D2).

At this point, we wish to note that in advocating the AERC model (i.e., with slight modifications) for improving the agricultural economics capacity in the region as a whole we are not precluding individual departments using their own initiatives to improve their capacity, such as elements of the one department (i.e., Go It Alone) and Twinning Models. In fact, departments should be encouraged to develop their own initiatives in addition to the benefits they should expect to receive as a result of implanting an extension of the AERC model.

## 8.4 PROPOSED MODEL FOR IMPROVING AGRICULTURAL ECONOMICS CAPACITY IN THE REGION: THE BASIC MODEL

Obviously, there are some significant managerial and funding issues that will need to be addressed by AERC if responsibility is assumed for helping improve the agricultural economics capacity in the region.

However, perhaps the first issue that needs to be resolved is whether or not AERC should incorporate the agricultural economics component or whether another organization modeled on the AERC should be established. Our own conviction is that it would be highly preferable, all other things being equal, for the agricultural economics component to be incorporated within AERC itself. Our reasons for this mirror the advantages listed under the AERC column in Table 12.

Providing the AERC and its Governing Board accept our recommendation concerning incorporation of the agricultural economics dimension in principle, then issues relating to management and funding will need to be addressed. We have not been asked to consider implementation issues but we believe that there would be merit in AERC considering:

- Setting up a separate managerial entity for the agricultural economics component.
- Raising funds specifically for addressing the issue of enhancing agricultural economics capacity.

We justify this strategy on the following grounds:

- To help safeguard the present initiatives of the AERC.
- To avoid possible problems relating to adding new departments/institutions and individuals representing them into a situation where those already involved are very familiar and comfortable with the operational system.
- To permit the possibility of easy incorporation of slightly different initiatives deemed desirable in improving agricultural economics capacity — that is a slight modification of the AERC model as it is currently being implemented.
- In recognition of the fact that the current initiatives of AERC cover most of Anglophone Africa whereas the new proposed initiative relating to agricultural economics only covers the eastern and possibly some of the southern part of the continent.

In terms of the general operational mode of the AERC (see Appendix D2), we see no reason for changes in the present mechanisms, for example:

- Having an Academic Board consisting of representatives of the different institutions making decisions on the categories of the different departments, curricula, the Joint Facility for Electives (JFE) courses, etc.
- Applying the principle of Category A and B universities.
- Identifying and recruiting resource persons from within and, if necessary, from outside the region to lecture at the JFE sessions.
- Contributing to the equipment needs of the different participating universities.
- Providing sponsorship support for M.Sc. level students from countries without a Category B university to study for M.Sc. degrees at Category B universities.
- Support for research on the part of faculty using a similar approval and monitoring system that is currently used by AERC.

However, in addition to the above, we propose four other issues that need to be addressed if the AERC model is to address the specific needs of enhancing agricultural economics capacity in the region in a cost effective and hopefully sustainable manner. These are as follows:

- There is an urgent need for upgrading many staff in agricultural economics departments preferably through identifying ways in which they can complete their Ph.D.s. Although participation in an agricultural economics version of the proposed Ph.D. program of AERC for economics would obviously be desirable this is of course premature. Instead, alternative approaches need exploring in the interim. One possibility is identification of funds and locations for doing a "sandwich" type of course approach (i.e., for up to a year) at an outside institution and registration for a Ph.D. at their home university. One possibility on the continent for doing this that merits possible consideration is the University of Pretoria (see Section 2.6). It is also suggested that one person on the supervisory committee should be appointed from another department of agricultural economics classified as a Category B university as far as agricultural economics is concerned, or if relevant, from a

Consultative Group on International Agricultural Research (CGIAR) institution[40] operating in the region. Financial support to permit this strategy would help in potentially safeguarding the quality of the dissertation and improve the objectivity, and also partially dilute potential personal issues relating to getting a Ph.D. from a person's home institution and department. While we recognize this way of obtaining a Ph.D. potentially has some flaws we believe that, given the realities in the region at the present time, such a strategy is likely to be the most efficacious.

- We would like AERC to explore the potential for asking universities that have the requisite facilities to host the JFE on a rotational basis (e.g., two years at each place), rather than holding it at the same place as the JFE for the economics component is currently held. Although we accept that it may raise some logistically related complications, which will need to be evaluated from both a feasibility and potential benefit/cost viewpoint, we believe it deserves serious consideration for the following reasons:
  - **T** It is likely to be cheaper than renting the current JFE commercial site, since it can be held during vacation periods permitting students to be housed in student hostels and fed in the student dining halls.
  - **T** There is potential for some of the savings to be spent on buying the necessary computers, software and teaching aids required for the JFE session to be left with the local department after completion of the JFE session — thus enhancing the local support infrastructure.
  - **T** It will bring the JFE closer to the institutions participating in AERC, thus enhancing their sense of ownership in the network and perception of benefits from participation in it.
  - **T** In a sense, it represents a compromise between the AERC and Center of Excellence models without the risk of the center always being geographically located in one institution.
- Given the shortage of agricultural economists in the region and that agricultural economics is essentially an applied discipline, it is highly desirable that research efforts focus primarily on practical problems relating to the agricultural sector. Thus, we propose that although one or more themes are added to the AERC-sponsored research agenda to reflect agricultural economic-related topics, approval of grants relating to agricultural economics should be confined to those with an applied orientation. We also propose that given the potential overlap in the research mandates of the IFPRI 2020 Vision Network for Eastern Africa, and the ECAPAPA Network that the Coordinators of these networks,[41] together with an AERC representative, constitute a Steering/Evaluation Group for the research proposals and possibly work out spheres of influence to avoid possible duplication of effort or focus.
- Finally, where universities have both agricultural economics and economic-related departments and they are geographically located close to each other (e.g., Egerton, Moi, Eduardo Mondlane, Zimbabwe, and possibly Nairobi), we believe AERC should try and encourage development of

[40] We believe there is potential for more fully utilizing the services of CGIAR economists stationed in the Eastern and Southern African Region, for helping to enhance agricultural economics capacity.

[41] Including possibly also the Coordinator of the FANRPAN Network. Also some liaison or communication should perhaps be maintained with the Forum Program and the socioeconomic component of the Soil Fertility Network.

collaboration between the two types of departments particularly with reference to courses taught at the postgraduate level,[42] and possibly at the undergraduate level if the class sizes are not too big.

## 8.5 PROPOSED MODEL FOR IMPROVING AGRICULTURAL ECONOMICS CAPACITY IN THE REGION: OTHER CONSIDERATIONS

There are a number of other issues that we believe will need to be addressed if agricultural economics capacity is to be improved and sustained in the region. However, it is important to note that not all are within the influence or are likely to be the responsibility of AERC. The most efficient way of addressing them may involve partnerships or collaboration between different funding and/or implementing agencies operating in the Eastern or Southern Africa Region. The main ones are the following:

- *Possible Initiative: Rockefeller Foundation(RF)*. Improving access to agricultural economics literature on the part of both faculty and graduate students is critically important in improving the quality, context, relevance, approach, and potential productivity of teaching and research efforts. The collaboration of the RF and Cornell University in creating the TEEAL (see Section 5.4) has been an important initiative in addressing this issue. In our field trips, we found not all agricultural economics departments have access to it and some were even not aware of its existence. This needs to be rectified as a matter of urgency.
- *Possible Initiative: American Agricultural Economics Association (AAEA)*. The AAEA is investigating the potential of an initiative relating to offering courses and possibly degrees through distance learning.[43] Currently the initiative is still in the exploratory stage but we believe there would be merit in being kept fully informed on plans as they develop and see how complementarities between their plans and the proposal developed in this report can be fully exploited. We propose that the RF Nairobi office and the IFPRI 2020 Vision Network for East African Network Coordinator take the responsibility for being kept informed and relay any developments/plans and proposals to the other members of this Steering Group (see Sections 1.1 and 1.3). There may be the possibility, for example, of using the courses offered to help improve/refresh the skills of faculty with Ph.D.s, providing courses for M.Sc. level students, potentially substituting for some of the "sandwich" types courses at the Ph.D. level, etc.

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[42] We recognize that currently the Economics Departments at Moi and Eduardo Mondlane have no postgraduate programs.

[43] Another initiative to keep an eye on is the African Virtual University, now headquartered in Nairobi (http://www.avu.org), which earlier received assistance from the World Bank, and currently concentrates on computer science, electrical and computer engineering, etc. Apparently an AAEA representative has been in contact with them about the possibility of collaboration. There are outlets at a number of the universities visited during the field trips, namely Addis Ababa, Egerton, Kenyatta, Pretoria, Dar es Salaam, Makerere, and Zimbabwe.

- *Possible Initiatives: The IFPRI and ECAPAPA Network Coordinators*. Ways need to be sought to increase the research opportunities and productivity of faculty in the departments of agricultural economics. Components that can contribute to this are:
  - **T** Increasing the numbers of postgraduate students through research grants and increased sponsorship, thereby increasing the supply of agricultural economists and helping to increase the research productivity/multiplier impact of faculty efforts.
  - **T** Making widely available information on potential research funding sources, and where there are potential areas of overlap, working out unique spheres of influence (see previous sub-section) to avoid duplication of effort in trying to access research funding.
  - **T** If required providing short courses on how to write and submit research proposals.
  - **T** Establishing and nurturing linkages with other researchers, research and development agencies, in order to help identify and access research resources and engage them in relevant and important research projects.
- *Possible Initiatives: AERC, RF, IFPRI, and ECAPAPA Networks*. Because of our earlier proposal that agricultural economics research proposals approved for funding under AERC, IFPRI, or AERC auspices should have an applied focus, it is unlikely that the results of such efforts will lend themselves to being published in international journals. Indeed, a more appropriate or relevant outlet is likely to be in a regional journal where papers of such a nature are likely to elicit greater interest. Unfortunately, such potential publication outlets are not readily available. The region has been plagued with problems of sustaining publication of journals in the region relating to agricultural economics. We believe the potential modus operandi for doing this in a sustainable manner needs to be explored perhaps building on the lessons learned from the recent successful experiences of the East African *Journal of Crop Science* produced from Makerere and partially supported under the RF-sponsored Forum Program (Ekwamu et al. 1998). We understand the recent ECAPAPA External Review Team has also indicated a need to address the issue of such a journal. We believe that this issue needs to be explored further and a strategy put in place to rectify the problem. One possible approach would be to provide some collective support for the Journal of Agriculture and Economic Development currently produced on a somewhat irregular basis at Sokoine. It has an editorial board consisting of representatives of several countries in the region and currently has print run of about 350 copies. There would potentially be major advantages for whatever journal emerges, for it to be associated with a professional association, for example, with an Agricultural Economics Association for Eastern and Southern Africa, if one could be successfully established and sustained. Three initiatives that might stimulate the production of publishable papers, particularly at the M.Sc. level would be to:
  - **T** Continue insisting on theses being produced at the M.Sc. level, something we stressed earlier (see Section 4.2).

- **T** Encouraging faculty to work with M.Sc. students to produce publishable papers from the theses perhaps through continuing to sponsor students for a short time after completion of their degrees.[44]
- **T** Encouraging students to work for faculty in an area that interests the faculty member, thereby providing them with an incentive to publish, rather than working on a topic only of interest to the students themselves.

• *Possible Initiative: the Home University Administration*. Earlier we stressed the importance of creating a facilitating and enabling working environment and an incentive system, as important components (i.e., exogenous factors) in improving and sustaining capacity in agricultural economics in university/departmental settings. This is primarily the responsibility of university administrations. Some of the strategies being used to create attractive working environments are mentioned in the following section.

## 8.6 INCENTIVE ISSUE

As already emphasized, incentives are important in retaining faculty.[45] A number of approaches/strategies are being/have been used. Examples are:

- Creating a favorable working environment through:
  - **T** Devolving decisionmaking and responsibility to the faculty level.
  - **T** Allowing flexibility in working hours.
  - **T** Not having a situation of potentially blocked promotion possibilities because of individuals already occupying more senior positions — in other words have a semi-floating professional establishment.
  - **T** Creating an environment that provides reasonable prospects for promotion.
  - **T** Supporting human resource development through staff development programs to enable faculty to complete advanced degrees if they do not have them already.
  - **T** Provide freedom to individuals in setting their own professional work agendas.
  - **T** Encourage professional challenges for faculty through linkages and activities with outside institutions (e.g., government), therefore helping in creating self-respect, recognition, and credibility for them.
- Providing personal incentives through:
  - **T** Improving the pay structure although there are usually major limitations on the extent to which this can be done.

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[44] We found that often little or no effort is made by faculty or staff to use the results of theses in producing publishable papers thus reducing the research multiplier impact of faculty and lessening their chances of promotion.

[45] These ideas and suggestions were offered by the Vice Chancellor of Makerere University and the Dean and Associate Dean of Sokoine University, both of which are places where there has in recent years, been considerable success in retaining faculty, even at senior ranks.

- **T** Improving retirement benefits thus discouraging early resignation.
- **T** Increasing retirement age (e.g., to 60) and permit contract appointments from then on.
- **T** Permitting consultancies.

## 8.7 CONCLUSION

In conclusion, we hope that the above proposal for improving the agricultural economics capacity in the region provides a useful starting point for designing a strategy that can be implemented with the help of donor funding. Given the importance of the agricultural sector in the economies of all the countries in the region we believe such an initiative is critically important in furthering the development of the region as a whole.

Table 1a — Agricultural economic and economic-related departments visited

| University | Agricultural Economics Related | Economics Related |
|---|---|---|
| Ethiopia: | | |
| Alemaya | Agricultural Economics | |
| Addis Ababa | | Economic Development and Planning |
| Kenya: | | |
| Egerton | Agricultural Economics and Business Management | Economics |
| Jomo Kenyatta[a] | Institute for Human Resources Development | |
| Kenyatta | | Economics |
| Moi[b] | Department of Agricultural Marketing and Cooperatives | Economics |
| Nairobi | Department of Agricultural Economics | Economics |
| MALAWI:[c] | | |
| Bunda | Rural Development | |
| Chancellor | | Economics |
| Mozambique: | | |
| Ed. Mondlane[d] | Agricultural Economics[e] | Economics |
| Rwanda: | | |
| National | No department[f] | Economics |
| South Africa: | | |
| Pretoria | Agricultural Economics, Extension and Rural Development[g] | |
| Tanzania: | | |
| Sokoine | Agricultural Economics and Agribusiness | |
| Dar es Salaam | | Economics[h] |
| Uganda: | | |
| Makerere | Agricultural Economics and Agribusiness | Institute of Economics[i] |
| Zimbabwe: | | |
| Zimbabwe | Agricultural Economics and Extension | Economics |

[a] The Institute includes both agricultural economists and economists.
[b] Due to time constraints it was not possible to visit Moi University.
[c] These are Colleges under the University of Malawi. The Rural Development Department at Bunda College also includes agricultural extension. Staff representing agricultural extension (i.e., a total of five) was excluded from the analysis in the following tables.
[d] Eduardo Mondlane University.
[e] There is currently no department but rather it is a section in the Department of Crop Production and Protection.
[f] There is no department but a recently approved area of Agricultural Economics and Agribusiness.
[g] The department was in fact not physically visited but discussions about it were held elsewhere in Pretoria with representatives of it.
[h] Includes the Economic Research Bureau, members of which are expected to devote up to 40% of their time on teaching.
[i] The Makerere University Institute of Economics (MUIE) includes three departments (i.e., Departments of Economic Theory and Analysis, Economic Policy and Planning, and Development Economics). There is also an Institute of Statistics and Applied Economics (ISAE), which in 1997 started a B.Sc in Quantitative Economics, which has not been included in the analysis. However, some information about ISAE is given in Appendix C8.3.

Table 1b — Autonomous institutions with agricultural economics/economics capacity visited during the field trips[a]

| Country | Socioeconomic Institutions | NARS | Networks | Others |
|---|---|---|---|---|
| Ethiopia | EDRI[b] | EARO | | |
| Kenya | IPAR, KIPPRA | KARI | AERC | REMPAI |
| Malawi | APRU, CSR[c] | | | Ministry of Agriculture, UNDP, and Capacity Building Initiative |
| Mozambique | PAU[b] | INIA[b] | | |
| Rwanda | | ISAR | | |
| Tanzania | ERB,[c] ERSF, REPOA[c] | | | World Bank |
| Uganda | EPRC | NARO | ECAPAPA | Institute of Applied Economics and Statistics Postgraduate School, Makerere |
| Zimbabwe | IDS[d] | | FANRPANb Soil Fert Netb | ACBF |

[a] For definitions of the acronyms see Appendix G.

[b] The department/unit was in fact not physically visited but discussions about it were held with representatives of it.

[c] REPOA was in fact not physically visited but discussions about it and the ERB were held with the Head of the Economics Department, Dar es Salaam, who was formerly employed in REPOA.

[d] Was not visited but notes it about have been included in the report based on an earlier report [Norman, 1998].

Table 2a — Staffing in agricultural economics departments[a]

| University | Teaching Assistant | Assistant Lecturer | Lecturer | Senior Lecturer | Associate Professor | Professor | Total Faculty |
|---|---|---|---|---|---|---|---|
| Ethiopia: | | | | | | | |
| Alemaya[b] | na [ 0] { 0} | na [ 0] { 2} | na [ 1] {20} | na [ 1] { 0} | na [ 0] { 0} | na [ 4] { 0} | na [ 6] {22} |
| Kenya: | | | | | | | |
| Egerton | 0 [ 0] { 3} | 6 [ 0] { 9} | 16 [ 4] { 9} | 8 [ 2] { 0} | 4 [ 0] { 0} | 2 [ 0] { 0} | 36 [ 6] {21} |
| Jomo Kenyatta[c] | 0 [ 0] { 0} | 0 [ 0] { 0} | 3 [ 0] { 3} | 1 [ 1] { 0} | 0 [ 0] { 0} | 0 [ 0] { 0} | 4 [ 1] { 3} |
| Moi[d] | | | | | | | |
| Nairobi | 0 [ 0] { 0} | 0 [ 0] { 0} | 8 [ 4] { 3} | 6 [ 4] { 0} | 4 [ 4] { 0} | 2 [ 0] { 0} | 20 [ 12] { 3} |
| Malawi: | | | | | | | |
| Bunda College[e] | na [ 0] { 0} | na [ 0] { 0} | na [ 2] { 1} | na [ 0] { 1} | na [ 1] { 0} | na [ 0] { 0} | 7 [ 3] { 2} |
| Mozambique: | | | | | | | |
| Eduardo Mondlane[f] | na [ 0] { 0} | na [ 0] { 2} | na [ 0] { 0} | na [ 1] { 0} | na [ 1] { 0} | na [ 0] { 0} | na [ 2] { 2} |
| Rwanda: | | | | | | | |
| National[g] | na [ 0] { 0} | na [ 0] { 4} | na [ 0] { 0} | na [ 0] { 0} | na [ 0] { 0} | na [ 0] { 0} | na [ 0] { 4} |
| Tanzania: | | | | | | | |
| Sokoine[h] | na [ 0] { 0} | na [ 0] { 3} | na [ 3] { 1} | na [ 7] { 0} | na [ 2] { 0} | na [ 0] { 0} | na [ 12] { 4} |
| Uganda: | | | | | | | |
| Makerere | 2 [ 0] { 0} | 4 [ 0] { 3} | 6 [ 6] { 4} | 4 [ 0] { 1} | 2 [ 0] { 0} | 1 [ 0] { 0} | 19 [ 6] { 8} |
| Zimbabwe: | | | | | | | |
| Zimbabwe[i] | na [ 0] { 0} | na [ 0] { 0} | na [ 3] { 4} | na [ 2] { 1} | na [ 1] { 0} | na [ 0] { 0} | 15 [ 6] { 5} |
| Total[j] | 2.0 [ 0] {3.0} | 10.0 [ 0] {23.0} | 33.0 [23] {45.0} | 19.0 [18.0] {3.0} | 10.0 [9.0] { 0} | 5.0 [4.0] { 0} | 101.0 [54.0] {74.0} |
| Average[j] | 0.5 [ 0] {0.3} | 2.5 [ 0] { 2.3} | 8.3 [2.3] { 4.5} | 4.8 [ 1.8] {0.3} | 2.5 [0.9] { 0} | 1.3 [0.4] { 0} | 16.8 [ 5.4] { 7.4} |

[a] In each column first figure represents establishment, the figure in [ ] indicates the actual number of staff with Ph.D.s, and the figure in { } represents the actual number of staff without Ph.D.s. Teaching Assistants are sometimes called Tutorial Fellows or Graduate Assistants.

[b] The department does not have an establishment as such (therefore 'na'). The Senior Lecturer rank is called Assistant Professor. In addition to the staff shown there are three other administrators who teach on a part time basis (i.e., the President of the University, the Academic Vice president, and the Coordinator of the Agriculture Research and Training Project (ARTP)). The President is a statistician/econometrician and the other two are agricultural economists. The four professors are all expatriates (i.e., three from India and one from Sudan) under contract and are hired under the World Bank/International Fund for Agricultural Development (IFAD) sponsored ARTP.

[c] There is no Agricultural Economics Department at present, although one is likely to be formed soon. Establishment is for the Institute for Human Resource Development and is not divided into disciplines - thus those listed in the table refer only to those currently filled by agricultural economists. The remaining establishment is included in Table 2b, although it is possible some of the current vacancies could be allocated to agricultural economics.

[d] Data on establishment and staffing not available. Discussions with Dr. Lydia Kimenye, Department of Agricultural Economics, University of Nairobi indicated one Lecturer, one Senior Lecturer and one Associate Professor. However, since the university was not visited, these data were excluded from the analysis.

[e] Total establishment is seven in agricultural economics - they do not break them down by position/rank.

[f] These figures should be treated with caution - they may not be exactly accurate. The person in the Associate Professor rank is an expatriate.

[g] There is currently no department but an area in Agricultural Economics and Agribusiness has been agreed at a recently held Seminar in Curriculum Reform (May 2001). In addition to the staff listed, two individuals in the Department of Economics are currently undergoing M.Sc. training in Agricultural Economics in South Africa and will help in the future to teach agricultural economics courses.

[h] Sokoine has no establishment by rank. Two of the master degree holders have MBA degrees.

[i] Total establishment is 15 in agricultural economics - they do not break them down by position/rank.

[j] The sums and averages vertically and horizontally for establishment do not correspond, because establishment is not broken down by rank in some universities.

Table 2b — Staffing in economics departments[a]

| University | Teaching Assistant | Assistant Lecturer | Lecturer | Senior Lecturer | Associate Professor | Professor | Total Faculty |
|---|---|---|---|---|---|---|---|
| Ethiopia: | | | | | | | |
| Addis Ababa[b] | na [ 0] { 2} | na [ 0] {10} | na [ 1] {11} | na [ 3] { 1} | na [ 1] { 0} | na [ 1] { 0} | na [ 6] {24} |
| Kenya: | | | | | | | |
| Egerton | 0 [ 0] { 0} | 5 [ 0] {10} | 5 [ 1] { 8} | 5 [ 2] { 0} | 2 [ 0] { 0} | 1 [ 0] { 0} | 18 [ 3] {18} |
| Jomo Kenyatta[c] | 2 [ 0] { 2} | 4 [ 0] { 2} | 4 [ 1] { 4} | 3 [ 2] { 0} | 1 [ 1] { 0} | 1 [ 0] { 0} | 15 [ 4] { 8} |
| Kenyatta | 0 [ 0] { 2} | 5 [ 0] { 9} | 12 [ 1] { 5} | 5 [ 2] { 1} | 0 [ 0] { 0} | 0 [ 0] { 0} | 22 [ 3] {17} |
| Moi[d] | | | | | | | |
| Nairobi[e] | 0 [ 0] { 1} | 0 [ 0] { 4} | 19 [ 6] { 8} | 12 [ 8] { 0} | 7 [ 3] { 0} | 3 [ 1] { 0} | 41 [18] {13} |
| Malawi: | | | | | | | |
| Chancellor College[f] | na [ 0] { 0} | na [ 0] { 0} | na [ 3] { 6} | na [ 2] { 1} | na [ 2] { 0} | na [ 1] { 0} | na [ 8] { 7} |
| Mozambique: | | | | | | | |
| Eduardo Mondlane[g] | na [ 0] { 5} | na [ 0] { 1} | na [ 0] { 2} | na [ 3] { 0} | na [ 1] { 0} | na [ 0] { 0} | na [ 4] { 8} |
| Rwanda: | | | | | | | |
| National[h] | na [ 0] { 0} | na [ 0] { 8} | na [ 0] { 7} | na [ 1] { 0} | na [ 1] { 0} | na [ 2] { 0} | na [ 4] {15} |
| Tanzania: | | | | | | | |
| Dar es Salaam[i] | 0 [ 0] { 0} | 10 [ 1] { 3} | 15 [15] { 1} | 8 [ 4] { 0} | 10 [ 7] { 0} | 5 [ 1] { 0} | 48 [28] { 4} |
| Uganda: | | | | | | | |
| Makerere[j] | 6 [ 0] { 2} | 12 [ 0] { 3} | 12 [ 5] { 7} | 6 [ 2] { 0} | 3 [ 2] { 0} | 3 [ 0] { 0} | 42 [ 9] { 12} |
| Zimbabwe: | | | | | | | |
| Zimbabwe[k] | na [ 0] { 4} | na [ 0] { 0} | na [ 9] { 4} | na [ 1] { 0} | na [ 0] { 1} | na [ 0] { 0} | 24 [10] { 9} |
| Total[l] | 8.0 [0] {18.0} | 36.0 [1.0] {50.0} | 67.0 [42.0] {63.0} | 39.0 [30.0] {3.0} | 23.0 [18.0] {1.0} | 13.0 [6.0] { 0} | 210.0 [97.0] {135.0} |
| Average[l] | 1.3 [0] { 1.6} | 6.0 [0.1] { 4.6} | 11.2 [ 3.8] { 5.7} | 6.5 [ 2.7] {0.3} | 3.8 [ 1.7] {0.1} | 2.2 [0.5] { 0} | 30.0 [ 8.8] { 12.3} |

[a] In each column first figure represents establishment, the figure in [ ] indicates the number with Ph.D.s, and the figure in { } represents the number without Ph.D.s. Teaching Assistants are sometimes called Tutorial Fellows or Graduate Assistants.

[b] The department does not have an establishment as such. The Senior Lecturer rank is called Assistant Professor.

[c] Some of the positions listed are not economics but include entrepreneurship, business administration, anthropology, etc. See also footnote c in Table 2a.

[d] Current figures on staffing are not available because the university was not visited. For figures in 1998 see Norman [1998].

[e] From 2000, establishment for posts of Lecturer and Assistant Lecturer have been combined.

[f] Total establishment unfortunately was not provided. Malawi does not have establishment by rank.

[g] Includes two expatriates - one each at the Senior Lecturer and Associate Professor levels.

[h] It was not possible to get the establishment - given the fluid situation in the university there appears to be no documentation on the approved establishment. The Senior Lecturer and Associate Professor positions are currently staffed by expatriates (i.e., Indian nationals).

[i] The figures combine the faculty of the Department of Economics and the Economic Research Bureau in which staff are expected to spend up to 40% of their time teaching.

[j] In addition to the Institute of Economics whose figures are in the table, there are eight Lecturers in the Institute of Statistics and Applied Economics who are not included in the analysis.

[k] Total establishment is 24 in economics - they do not break them down by position/rank except for Teaching Assistant and Professor.

[l] The sums and averages vertically and horizontally for establishment do not correspond, because establishment is not broken down by rank in some universities.

Table 3a — Percent vacancies and percent without Ph.D.s, agricultural economics departments

| | Percent of Establishment | | Percent Staff Without Ph.D.s | |
|---|---|---|---|---|
| University | Positions Filled | Actual Staff[a] | Positions Filled | Actual Staff[a] |
| Ethiopia: | | | | |
| Alemaya | n.a. | n.a. | 78.6 | 45.5 |
| Kenya: | | | | |
| Egerton | 75.0 | 66.7 | 77.8 | 83.3 |
| Jomo Kenyatta | n.a. | n.a. | 75.0 | 75.0 |
| Moi | n.a. | n.a. | n.a. | n.a. |
| Nairobi | 75.0 | 60.0 | 20.0 | 16.7 |
| Malawi: | | | | |
| Bunda | 71.4 | 57.1 | 40.0 | 25.0 |
| Mozambique: | | | | |
| Eduardo Mondlane | n.a. | n.a. | 50.0 | 50.0 |
| Rwanda: | | | | |
| National | n.a. | n.a. | 100.0 | 100.0 |
| Tanzania: | | | | |
| Sokoine | n.a. | n.a. | 25.0 | 14.3 |
| Uganda: | | | | |
| Makerere | 73.7 | 57.9 | 57.1 | 45.5 |
| Zimbabwe: | | | | |
| Zimbabwe | 73.3 | 60.0 | 45.5 | 33.3 |
| Average | 73.7 | 60.3 | 56.9 | 48.9 |

[a] These are defined as academic staff that is actually in place - that is not on study leave or leave without pay.

Table 3b — Percent vacancies and percent without Ph.D.s, economics departments

| | Percent of Establishment | | Percent Staff Without Ph.D.s | |
|---|---|---|---|---|
| University | Positions Filled | Actual Staff[a] | Positions Filled | Actual Staff[a] |
| Ethiopia: | | | | |
| Addis Ababa | n.a. | n.a. | 80.0 | 64.7 |
| Kenya: | | | | |
| Egerton | 116.7 | 100.0 | 85.7 | 94.4 |
| Jomo Kenyatta | n.a. | n.a. | 66.7 | 66.7 |
| Kenyatta | 90.9 | 77.3 | 85.0 | 82.4 |
| Moi | n.a. | n.a. | n.a. | n.a. |
| Nairobi | 75.6 | 63.4 | 41.9 | 50.0 |
| Malawi: | | | | |
| Chancellor | n.a. | n.a. | 46.7 | 42.9 |
| Mozambique: | | | | |
| Eduardo Mondlane | n.a. | n.a. | 66.7 | 63.6 |
| Rwanda: | | | | |
| National | n.a. | n.a. | 78.9 | 73.3 |
| Tanzania: | | | | |
| Dar es Salaam | 66.7 | 47.9 | 12.5 | 4.3 |
| Uganda: | | | | |
| Makerere | 50.0 | 45.2 | 57.1 | 52.6 |
| Zimbabwe: | | | | |
| Zimbabwe | 79.2 | 75.0 | 47.4 | 44.4 |
| Average | 79.8 | 68.1 | 60.8 | 58.1 |

[a] These are defined as academic staff that are actually in place - that is not on study leave or leave without pay.

Table 4a — Women faculty in agricultural economics departments

| University | Number of Women Faculty | Male/Female Faculty Ratio |
|---|---|---|
| Ethiopia: | | |
| Alemaya | 1 | 27.00 : 1 |
| Kenya: | | |
| Egerton | 4 | 5.75 : 1 |
| Jomo Kenyatta[a] | | |
| Moi[a] | | |
| Nairobi | 4 | 2.75 : 1 |
| Malawi: | | |
| Bunda | 0 | — |
| Mozambique: | | |
| Eduardo Mondlane | 1 | 3.00 : 1 |
| Rwanda: | | |
| National | 0 | — |
| Tanzania | 2 | 7.00 : 1 |
| Uganda: | | |
| Makerere | 4 | 2.50 : 1 |
| Zimbabwe: | | |
| Zimbabwe | 4 | 1.75 : 1 |
| Average | 2.2 | 7.10 : 1[b] |

[a] Data not available.
[b] Is the average of the universities with such ratios.

Table 4b — Women faculty in economics departments

| University | Number of Women Faculty | Male/Female Faculty Ratio |
|---|---|---|
| Ethiopia: | | |
| Addis Ababa | 2 | 14.00 : 1 |
| Kenya: | | |
| Egerton | 4 | 4.25 : 1 |
| Jomo Kenyatta[a] | | |
| Kenyatta[a] | | |
| Moi | | |
| Nairobi | 5 | 5.20 : 1 |
| Malawi: | | |
| Chancellor | 2 | 6.50 : 1 |
| Mozambique | 1 | 11.00 : 1 |
| Rwanda: | | |
| National | 3 | 5.33 : 1 |
| Tanzania: | | |
| Dar es Salaam | 1 | 31.00 : 1 |
| Uganda: | | |
| Makerere | 5 | 3.20 : 1 |
| Zimbabwe: | | |
| Zimbabwe[b] | 2 | 6.50 : 1 |
| Average | 2.7 | 9.66 : 1[c] |

[a] Data not available.
[b] Excludes Technical Assistant positions, which are temporary.
[c] Is the average of the universities with such ratios.

Table 5a — Origin of terminal degree in agricultural economics related departments[a]

| Country/ University | Own University | Own Country[b] | Other Africa[c] | Asia | Europe/ Australia/Japan | North America | Other/ Uncertain | Total |
|---|---|---|---|---|---|---|---|---|
| Ethiopia: | | | | | | | | |
| Alemaya | 0 [ 5] { 1} | 0 [ 3] { 1} | 0 [ 0] { 0} | 3 [ 0] { 0} | 2 [12] { 0} | 1 [ 0] { 0} | 0 [ 0] { 0} | 6 [20] { 2} |
| Kenya: | | | | | | | | |
| Egerton | 2 [ 4] { 3} | 1 [ 6] { 0} | 0 [ 0] { 0} | 1 [ 1] { 0} | 1 [ 4] { 0} | 0 [ 3] { 0} | 1 [ 0] { 0} | 6 [18] { 3} |
| Jomo Kenyatta | 0 [ 0] { 0} | 0 [ 2] { 0} | 0 [ 0] { 0} | 0 [ 0] { 0} | 0 [ 0] { 0} | 0 [ 1] { 0} | 1 [ 0] { 0} | 1 [ 3] { 0} |
| Moi[d] | | | | | | | | |
| Nairobi | 3 [ 2] { 0} | 0 [ 0] { 0} | 0 [ 0] { 0} | 0 [ 0] { 0} | 2 [ 0] { 0} | 7 [ 1] { 0} | 0 [ 0] { 0} | 12 [ 2] { 0} |
| Malawi: | | | | | | | | |
| Bunda | 0 [ 0] { 0} | 0 [ 0] { 0} | 0 [ 0] { 0} | 0 [ 0] { 0} | 2 [ 1] { 0} | 1 [ 1] { 0} | 0 [ 0] { 0} | 3 [ 2] { 0} |
| Mozambique: | | | | | | | | |
| Eduardo Mondlane | 0 [ 0] { 0} | 0 [ 0] { 0} | 0 [ 0] { 0} | 0 [ 0] { 0} | 1 [ 2] { 0} | 0 [ 0] { 0} | 1 [ 0] { 0} | 2 [ 2] { 0} |
| Rwanda: | | | | | | | | |
| National | 0 [ 0] { 4}[e] | 0 [ 0] { 0} | 0 [ 0] { 0} | 0 [ 0] { 0} | 0 [ 0] { 0} | 0 [ 0] { 0} | 0 [ 0] { 0} | 0 [ 0] { 4} |
| Tanzania: | | | | | | | | |
| Sokoine | 2 [ 2] { 0} | 0 [ 2] { 0} | 0 [ 0] { 0} | 0 [ 0] { 0} | 9 [ 0] { 0} | 1 [ 0] { 0} | 0 [ 0] { 0} | 12 [ 4] { 0} |
| Uganda: | | | | | | | | |
| Makerere | 0 [ 3] { 2} | 0 [ 0] { 0} | 1 [ 1] { 0} | 0 [ 0] { 0} | 2 [ 0] { 0} | 3 [ 2] { 0} | 0 [ 0] { 0} | 6 [ 6] { 2} |
| Zimbabwe: | | | | | | | | |
| Zimbabwe | 3 [ 2] { 0} | 0 [ 0] { 0} | 0 [ 1] { 0} | 0 [ 0] { 0} | 0 [ 1] { 0} | 3 [ 1] { 0} | 0 [ 0] { 0} | 6 [ 5] { 0} |
| Total | 10 [18] {10} | 1 [13] { 1} | 1 [ 2] { 0} | 4 [1 ] { 0} | 19 [20] { 0} | 16 [ 9] { 0} | 3 [ 0] { 0} | 54 [63] {11} |

[a] The first figure in each column represents the number with Ph.D.s, the second figure in [ ] represents the number with M.Sc. degrees, and the third figure in { } represents the number with B.Sc degrees as their terminal degree.
[b] But not in own university.
[c] Excludes those whose terminal degree was in their own country.
[d] Data were not available since the university was not visited.
[e] These in fact have Ir degrees, which is a five-year degree probably somewhat equivalent to an M.Sc. degree.

Table 5b — Origin of terminal degree in economics-related departments[a]

| Country/ University | Own University | Own Country[b] | Other Africa[c] | Asia | Europe/ Australia/Japan | North America | Other/ Uncertain | Total |
|---|---|---|---|---|---|---|---|---|
| Ethiopia: | | | | | | | | |
| Addis Ababa | 0 [ 9] {11} | 0 [ 0] { 0} | 0 [ 0] { 0} | 0 [ 1] { 0} | 6 [ 3] { 0} | 0 [ 0] { 0} | 0 [ 0] { 0} | 6 [13] {11} |
| Kenya: | | | | | | | | |
| Egerton | 0 [ 2] { 0} | 0 [10] { 0} | 0 [ 2] { 0} | 0 [ 3] { 0} | 1 [ 0] { 0} | 1 [ 1] { 0} | 1 [ 0] { 0} | 3 [18] { 0} |
| Jomo Kenyatta | 1 [ 1] { 2} | 1 [ 1] { 0} | 0 [ 0] { 0} | 0 [ 1] { 0} | 0 [ 1] { 0} | 0 [ 1] { 0} | 2 [ 1] { 0} | 4 [ 6] { 2} |
| Kenyatta | 0 [ 4] { 2} | 0 [ 5] { 0} | 0 [ 2] { 0} | 0 [ 0] { 0} | 1 [ 1] { 0} | 2 [ 3] { 0} | 0 [ 0] { 0} | 3 [15] { 2} |
| Moi[d] | | | | | | | | |
| Nairobi | 5 [ 3] { 1} | 0 [ 0] { 0} | 0 [ 0] { 0} | 2 [ 0] { 0} | 4 [ 5] { 0} | 5 [ 4] { 0} | 2 [ 0] { 0} | 18 [12] { 1} |
| Malawi: | | | | | | | | |
| Chancellor | 0 [ 0] { 0} | 0 [ 5] { 0} | 0 [ 0] { 0} | 0 [ 0] { 0} | 3 [ 0] { 0} | 3 [ 2] { 0} | 2 [ 0] { 0} | 8 [ 7] { 0} |
| Mozambique: | | | | | | | | |
| Eduardo Mondlane | 0 [ 0] { 0} | 0 [ 0] { 0} | 0 [ 2] { 0} | 0 [ 0] { 0} | 3 [ 4] { 1}[e] | 1 [ 0] { 0} | 0 [ 1] { 0} | 4 [ 7] { 1} |
| Rwanda: | | | | | | | | |
| National | 0 [ 0] { 8} | 0 [ 0] { 0} | 0 [ 0] { 0} | 2 [ 0] { 0} | 0 [ 0] { 0} | 0 [ 0] { 0} | 2 [ 7] { 0} | 4 [ 7] { 8} |
| Tanzania: | | | | | | | | |
| Dar es Salaam | 16 [ 2] { 0} | 0 [ 0] { 0} | 0 [ 0] { 0} | 0 [ 0] { 0} | 7 [ 1] { 0} | 5 [ 1] { 0} | 0 [ 0] { 0} | 28 [ 4] { 0} |
| Uganda: | | | | | | | | |
| Makerere[f] | 1 [ 6] { 0} | 0 [ 0] { 0} | 0 [ 5] { 0} | 1 [ 0] { 0} | 3 [ 0] { 0} | 4 [ 1] { 0} | 0 [ 0] { 0} | 9 [ 12] { 0} |
| Zimbabwe: | | | | | | | | |
| Zimbabwe | 0 [ 3] { 4} | 0 [ 0] { 0} | 0 [ 0] { 0} | 0 [ 0] { 0} | 9 [ 2] { 0} | 1 [ 0] { 0} | 0 [ 0] { 0} | 10 [ 5] { 4} |
| Total | 23 [30] { 28} | 1 [ 21] { 0} | 0 [11] { 0} | 5 [ 5] { 0} | 37 [17] { 1} | 22 [13] { 0} | 9 [ 9] { 0} | 97 [106] {29} |

[a] The first figure in each column represents the number with Ph.Ds, the second figure in [ ] represents the number with M.A./M.Phil. degrees, and the third figure in { } represents the number with B.A. degrees as their terminal degree.

[b] But not in own university.

[c] Excludes those whose terminal degree was in their own country.

[d] Data were not available since the university was not visited.

[e] Includes one Ph.D. and one B.Sc. from Russia.

[f] The figures in the table refer to the Institute of Economics. In addition in the Institute of Statistics and Applied Economics the eight lecturers have terminal degrees from: Makerere University (one M.Sc.); Europe/Australia (one Ph.D. and five M.A.); and, Asia (one M.Sc.).

Table 6a — Staff on study leave (S) and leave of absence (L), agricultural economics departments

| University | Teaching Assistant | Assistant Lecturer | Lecturer | Senior Lecturer | Associate Professor | Professor | Total | Percent Staff | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | On Study Leave | On Leave Without Pay | Total Away |
| Ethiopia: | | | | | | | | | | |
| Alemaya[a] | | 2S | 15S | | | | 17S | 60.7 | 0.0 | 60.7 |
| Kenya: | | | | | | | | | | |
| Egerton | | 1L | 1S 1L | | | | 1S 2L | 3.7 | 7.4 | 11.1 |
| Jomo Kenyatta | | | | | | | | 0.0 | 0.0 | 0.0 |
| Moi[b] | | | | | | | | | | |
| Nairobi | | | 1S | 1L | 1L | | 1S 2L | 6.7 | 13.3 | 20.0 |
| Malawi: | | | | | | | | | | |
| Bunda | | | 1S | | | | 1S | 20.0 | 0.0 | 20.0 |
| Mozambique: | | | | | | | | | | |
| Eduardo Mondlane | | | | | | | | 0.0 | 0.0 | 0.0 |
| Rwanda: | | | | | | | | | | |
| National | | 2S | | | | | 2S | 50.0 | 0.0 | 50.0 |
| Tanzania: | | | | | | | | | | |
| Sokoine[c] | | 1S | 1S | | | | 2S | 12.5 | 0.0 | 12.5 |
| Uganda: | | | | | | | | | | |
| Makerere[d] | | 2S | 1S | | | | 3S | 21.4 | 0.0 | 21.4 |
| Zimbabwe: | | | | | | | | | | |
| Zimbabwe | | | 2S | | | | 2S | 18.2 | 0.0 | 18.2 |
| Total | | 7S 1L | 22S 1L | 1L | 1L | | 29S 4L | 19.0 | 2.0 | 21.0 |

[a] Leaves of absence without pay are not normally permitted in Ethiopian universities. Instead faculty have to resign and theoretically can reapply for employment later. Since 1998, 16 have resigned or moved to administrative appointments in the university (i.e., two Teaching Assistants, two Assistant Lecturers, four Lecturers, six Assistant Professors and two Associate Professors).
[b] Data not available.
[c] Maximum time for leave without pay is now reduced to two years.
[d] Makerere University has, in the last three years, stopped faculty from taking leave without pay.

Table 6b — Staff on study leave (S) and leave of absence (L), economics departments

| University | Teaching Assistant | Assistant Lecturer | Lecturer | Senior Lecturer | Associate Professor | Professor | Total | Percent Staff: On Study Leave | Percent Staff: On Leave Without Pay | Percent Staff: Total Away |
|---|---|---|---|---|---|---|---|---|---|---|
| Ethiopia: | | | | | | | | | | |
| Addis Ababa[a] | | 5S | 8S | | | | 13S | 43.3 | 0.0 | 43.3 |
| Kenya: | | | | | | | | | | |
| Egerton | | | | | | | 1S 2L | 4.8 | 9.5 | 14.3 |
| Jomo Kenyatta | | | 1S 1L | 1L | | | | 0.0 | 0.0 | 0.0 |
| Kenyatta | | | | | | | 3S | 15.0 | 0.0 | 15.0 |
| Moi[b] | | 3S | | | | | | | | |
| Nairobi | | | 2L | 1L | 1L | 1L | 5L | 0.0 | 16.1 | 16.1 |
| Malawi: | | | | | | | | | | |
| Chancellor | | | 3S | 1S 2L | 2L | | 4S 4L | 26.7 | 26.6 | 53.3 |
| Mozambique: | | | | | | | | | | |
| Eduardo Mondlane | 1S | | | | | | 1S | 8.3 | 0.0 | 8.3 |
| Rwanda: | | | | | | | | | | |
| National | | 4S | | | | | 4S | 21.1 | 0.0 | 21.1 |
| Tanzania: | | | | | | | | | | |
| Dar es Salaam | | 2S | 1S 2L | | 4L | | 3S 6L | 9.4 | 18.7 | 28.1 |
| Uganda: | | | | | | | | | | |
| Makerere[c] | | | 2S | | | | 2S | 9.5 | 0.0 | 9.5 |
| Zimbabwe: | | | | | | | | | | |
| Zimbabwe | | | 1S | | | | 1S | 5.3 | 0.0 | 5.3 |
| Total | 1S | 14S | 16S 5L | 1S 4L | 7L | 1L | 32S 17L | 13.0 | 6.0 | 19.0 |

[a] Leaves of absence without pay are not normally permitted in Ethiopian universities. Instead faculty have to resign and theoretically can reapply for employment later.
[b] Data not available.
[c] The figures in the row refer to the Institute of Economics. In the Institute of Statistics and Applied Economics two of the Lecturers are on study leave. Makerere University has, in the last three years, stopped faculty from taking leave without pay.

Table 7 — Staffing situation, Department of Agricultural Economics, Extension, and Rural Development, University of Pretoria[a]

| Variable | Staffing[b] | Origin of Terminal Degree[c] | | | | Staff Out[d] | |
|---|---|---|---|---|---|---|---|
| | | Own University | Own Country | Europe/ Australia/ Japan | North America | | |
| Staff: | | | | | | | |
| Technical Assistant | 0 [0] {4} | 0 [2] {2} | 0 [0] {0} | 0 [0] {0} | 0 [0] {0} | | |
| Assistant Lecturer | 0 [0] {1} | 0 [0] {1} | 0 [0] {0} | 0 [0] {0} | 0 [0] {0} | | |
| Lecturer | 6 [2] {4} | 0 [2] {0} | 0 [0] {0} | 0 [1] {0} | 2 [1] {0} | 1S | |
| Senior Lecturer | 0 [2] {0} | 1 [0] {0} | 1 [0] {0} | 0 [0] {0} | 0 [0] {0} | | |
| Associate Professor | 1 [0] {0} | 0 [0] {0} | 0 [0] {0} | 0 [0] {0} | 0 [0] {0} | | |
| Professor | 4 [4] {0} | 2 [0] {0} | 0 [0] {0} | 1 [0] {0} | 1 [0] {0} | | 1L |
| Total | 11 [8] {9} | 3 [4] {3} | 1 [0] {0} | 1 [1] {0} | 3 [1] {0} | | |
| Staff (%):[e] | | | | | | | |
| Vacancies | Positions filled: | > 100% | | Actual staff: | 100% | | |
| Without Ph.D.s | | 27% | | | 33% | | |
| Gender related | Number of women faculty: | 4 | | Male/female faculty ratio: | 3.25:1 | | |

[a] The material in this table for the Pretoria reflects that presented for other departments in the region in Tables 2 to 6 inclusive.
[b] In each column the first figure represents establishment, the figure in [ ] indicates the number with Ph.D.s, and the figure in { } represents the number without Ph.D.s. In addition to the staff listed there are five part time academic staff.
[c] The first figure in each column represents the number with Ph.D.s, the second figure in [ ] represents the number with M.Sc. degrees, and the third figure in { } represents the number with B.Sc degrees as their terminal degree.
[d] S is study leave and L is leave without pay although in this case the person is on sabbatical with the World Bank.
[e] The figures calculated exclude consideration of Technical Assistants and Assistant Lecturers for which there is no establishment.

Table 8a — Degrees offered in agricultural economics[a, b, c]

| | B.Sc. Degree | | | | |
|---|---|---|---|---|---|
| University | Agric (Option)[d] | Ag. Ec. | Ag. Bus. | Resource Ec. | M.Sc. Degree |
| Ethiopia: | | | | | |
| Alemaya | No (No) | No | No | No | Yes - 2 options |
| Kenya: | | | | | |
| Egerton | Yes (No) | Yes [60] | Yes [50] | No | Yes |
| Jomo Kenyatta | No (No) | No | No | No | No |
| Moi[e] | No (No) | No | No | No | Yes - 5 options |
| Nairobi[f] | Yes (Yes [30]) | SA | Yes | SA | Yes |
| Malawi: | | | | | |
| Bunda[g] | Yes (Yes [25]) | No | No | No | Yes |
| Mozambique: | | | | | |
| Ed. Mondlane | Yes (No [35])[h] | No | No | No | Approved in Rural Development[i] |
| Rwanda: | | | | | |
| National | Yes (Yes)[j] | No | No | No | No |
| Tanzania: | | | | | |
| Sokoine[k] | Yes (No) | Yes [80] | | No | Yes |
| Uganda: | | | | | |
| Makerere[l] | Yes (Yes [25]) | On hold | Yes | No | Yes - 2 degrees |
| Zimbabwe: | | | | | |
| Zimbabwe[m] | Yes (Yes [47]) | No | No | No | Yes - M.Sc. and M.Phil.[n] |

[a] Most universities (not Alemaya) offer Ph.D. degrees in agricultural economics consisting of a dissertation although some now encourage some course work elsewhere.
[b] SA in table means seeking approval.
[c] Approximate numbers/year taking the B.Sc. degree are in [ ].
[d] Indicates whether there is an option in agricultural economics within the B.Sc agriculture degree.
[e] Obtained from Norman [1998].
[f] The B.Sc. in Agribusiness is just starting this year.
[g] Out of 120 students/year in agriculture, 75–80 want to do the agricultural economics option (1 of 10 options). However, only 25 can be selected. Therefore it is possible to select the best students. As a result this year all four distinctions that occurred in the graduating class came from students doing the agricultural economics option!
[h] There is a certain amount of agricultural economics in two options offered: crop production (25 students) and forestry engineering (10 students). The first degree has until now has theoretically taken five years including a thesis. This is now being reduced to four years and the thesis is being replaced by a research paper.
[i] To be offered for the first time in August this year. There will be four options with 15 students in each and students for each will be accepted every other year.
[j] Just approved and will be starting when staffing situation permits.
[k] A combined Agricultural Economics and Agribusiness B.Sc. is now being offered—consequently the option in agricultural economics in the agriculture degree no longer exists, although those taking the agriculture degree (i.e., about 100 students) have some agricultural economics courses.
[l] There are a total of 80 graduates/year in agriculture. The popularity of the agricultural economics option has led to a quota being placed on the number choosing the agricultural economics option. In addition there are about 20 choosing the agricultural economics option in the B.A. economics degree offered in the Institute of Economics. The Department of Agricultural Economics and Agribusiness Management helps in teaching the option courses. The three-year B.Sc. in Agricultural Economics is on hold because of staff constraints and the three-year BABM (Bachelor of Agribusiness Management), which is starting this year, has a maximum intake of 50 students. The first students with an M.Sc. in Agribusiness Management will graduate this year. This degree is distinct from the M.Sc. in Agricultural Economics that has been offered for many years.
[m] An option has to be declared when the student enters the university and the degree is three years in duration.
[n] M.Sc. involves course work plus thesis while M.Phil. just involves course work.

Table 8b — Degrees offered in economics[a, b]

| University | B.A. Degree | M.A. Degree |
|---|---|---|
| Ethiopia: | | |
| Addis Ababa | Yes [80 plus 50 part time] | Yes — 2 concentration areas — called an M.Sc. degree |
| Kenya: | | |
| Egerton | Yes [Unknown] | Yes — recently started |
| Jomo Kenyatta | No | No |
| Kenyatta | Yes [50-100] | Yes — is exploring offering MA degree in Econometrics |
| Moi | Yes [na] | No |
| Nairobi | Yes [70] | Yes — AERC Category B department |
| Malawi: | | |
| Chancellor | Yes [34] | Yes — AERC Category B department |
| Mozambique: | | |
| Ed. Mondlane | Yes [20-50][c] | No |
| Rwanda: | | |
| National | Yes [74][d] | No — but are thinking about it |
| Tanzania: | | |
| Dar es Salaam | Yes [55] | Yes |
| Uganda: | | |
| Makerere[e] | Yes [Unknown] | Yes — 2 options |
| Zimbabwe: | | |
| Zimbabwe | Yes [120-150] | Yes - M.Sc. and M.Phil. |

[a] Most universities offer Ph.D. degrees in economics (not Addis Ababa) consisting of a dissertation although some now encourage some course work elsewhere.

[b] Approximate numbers/year taking the B.A. degree are in [ ].

[c] The first degree until now has theoretically taken five years including a thesis. Failure to complete in a timely manner has resulted in the degree being reduced to four years and replacement of a thesis by a comprehensive exam. Hence the graduation rate is likely to increase from 20 to 50 per year.

[d] There are three options: International Economics (10 students), Development Economics (28), and Banking and Finance (36).

[e] The information in the row refers to the Institute of Economics. In the Institute of Statistics and Applied Economics a three-year degree B.Sc. in Quantitative Economics was offered for the first time in 1997. About 50 individuals graduated in 2000.

Table 9a — M.Sc./M.Phil. graduates in agricultural economics by year[a]

| University | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ethiopia: | | | | | | | | | | | | |
| Alemaya[b] | 2 | 3 | 5 | 5 | 3 | 2 | 1 | 3 | 7 | 2 | 2 | 35 |
| Kenya: | | | | | | | | | | | | |
| Egerton[c] | 0 | 0 | 0 | 0 | 0 | 4 | 2 | 0 | 7 | 0 | 1 | 14 |
| Jomo Kenyatta | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Moi[d] | 0 | 0 | 0 | 0 | na | na | na | na | na | na | na | 10 |
| Nairobi[e] | 9 | 1 | 0 | 13 | 5 | 0 | 9 | 3 | 5 | 0 | 0 | 45 |
| Malawi: | | | | | | | | | | | | |
| Bunda[f] | 0 | 0 | 0 | 0 | 0 | 5 | 1 | 4 | 2 | 0 | 2 | 14 |
| Mozambique: | | | | | | | | | | | | |
| Ed. Mondlane | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Rwanda: | | | | | | | | | | | | |
| National | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Tanzania: | | | | | | | | | | | | |
| Sokoine[g] | 6 | 8 | 5 | 6 | 1 | 4 | 2 | 4 | 5 | 3 | 5 | 49 |
| Uganda: | | | | | | | | | | | | |
| Makerere[h] | 0 | 0 | 0 | 15 | 14 | 8 | 10 | 14 | 12 | 6 | 6 | 85 |
| Zimbabwe: | | | | | | | | | | | | |
| Zimbabwe[i] | 0 | 0 | 0 | 10 | 0 | 10 | 0 | 10 | 0 | 12 | 0 | 42 |
| Total[j] | 17 | 12 | 10 | 49 | 23 | 33 | 25 | 38 | 38 | 23 | 16 | 294 |

[a] The 'na' indicates data were not available. It proved difficult to get the figures for some departments - therefore the actual levels for each year should be treated with caution. The total figure in the total column reflects the sums of the figures in that column.

[b] Seventeen students graduated with M.Sc.s prior to 1990. After 1995 a second option in addition to Agricultural Economics (i.e., Food and Agricultural Marketing) has been introduced. The figures from 1995 include those graduating from both options.

[c] One Ph.D. graduated in 2000.

[d] Dr. Lydia Kimenye indicated that seven students were enrolled during the current academic year (2000/01). She also indicated that a total of 10 students have graduated with M.Phil degrees to date.

[e] The numbers of M.Sc. graduates in earlier periods were 1973–80 (48) and 1981–90 (25). Figures in this row were kindly provided by Dr. Lydia Kimenye. She also provided data, which indicated during the period 1973–2001, the total numbers of M.Sc. students registered were 179 of which 109 graduated. She also indicated many students take longer than two years to complete usually because of a lack of funds to complete field research in a timely manner.

[f] This total of 14 graduates excludes six or seven that completed their course work and were offered jobs before they had completed their theses.

[g] The larger number of students that graduated during the 1990 to 1993 period was due to the Deutsche Gesellschaft fur Technische Zusammenarbeit (GTZ) sponsored regional Southern African Development Community (SADC) program, which after this period was transferred to the University of Zimbabwe.

[h] The current numbers of students in the M.Sc. are 11 and in the MABM are 25.

[i] In addition a few M.Phil.s graduated — about five/year in the early 1990s decreasing to two/year in late 1990s. M.Phil. means thesis only. Also D.Phils have graduated — about three/year in the early 1990s to about one/year now. The boost in training M.Sc. students came with the GTZ-supported regional program in which the department became a centre of excellence (see Appendix B9.2) for training individuals to the M.Sc. level from the SADC region.

[j] This is obviously an underestimate because of figures from some universities being unavailable for some years.

Table 9b — M.A./M.Phil. graduates in economics by year[a]

| University | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ethiopia: | | | | | | | | | | | | |
| Addis Ababa[b] | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 165 |
| Kenya: | | | | | | | | | | | | |
| Egerton | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Jomo Kenyatta | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Kenyatta | na | na | na | na | na | na | na | 3 | 3 | 4 | 1 | 11 |
| Moi | na | na | na | na | na | na | na | na | na | na | na | na |
| Nairobi | na | na | na | na | na | 7 | 12 | 22 | 21 | 17 | 18 | 97 |
| Malawi: | | | | | | | | | | | | |
| Chancellor[c] | na | na | na | na | na | na | na | na | na | na | 8 | 8 |
| Mozambique: | | | | | | | | | | | | |
| Ed. Mondlane | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Rwanda: | | | | | | | | | | | | |
| National | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Tanzania: | | | | | | | | | | | | |
| Dar es Salaam | 10 | 10 | 10 | 10 | 12 | 14 | 9 | 12 | 12 | 10 | 9 | 118 |
| Uganda: | | | | | | | | | | | | |
| Makerere[d] | na | na | na | na | na | na | na | na | <20 | <20 | <20 | 60 |
| Zimbabwe: | | | | | | | | | | | | |
| Zimbabwe[e] | 8 | 8 | 8 | 8 | 12 | 15 | 15 | 18 | 18 | 18 | 18 | 146 |
| Total[f] | 28 | 29 | 30 | 31 | 38 | 51 | 52 | 72 | 92 | 88 | 94 | 605 |

[a] The 'na' indicates data were not available.
[b] The figures are approximate but there was a trend upwards during the 1990s with about 10 graduating in 1990 and 20 graduating in 2000.
[c] Unfortunately numbers of masters' graduates were not available but recent sponsorship on the part of the Reserve Bank and UNDP has declined implying the numbers graduating in earlier years were higher.
[d] The figures may be an underestimate given that the numbers currently (2001) enrolled in the Economic Policy and Management, and the Economic Policy and Planning options are 33 and 62 respectively.
[e] The department became involved with the AERC in 1994. They admitted 23 students in 2001. They also have M.Phil students but not more than one per year and this degree has become less popular in recent years. Only one or two D.Phils have completed although four are registered currently.
[f] This is obviously an underestimate because of figures from some universities being unavailable for certain years.

Table 10 — Courses in the M.Sc. degree agricultural economic courses in different institutions

| | Agricultural economic departments in different universities[bc] | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Course[a] | A | B | C | D | E | F | G | H |
| *Common Core (Compulsory) Courses*:[d] | | | | | | | | |
| Theory: | | | | | | | | |
| Macroeconomics | 48 | 45 | 45 | 40* | 45 | 30 | 45 | 45 |
| Microeconomics | 48 | 45 | | Inc | 60 | 45 | 45 | 45 |
| Production Economics | 48 | 45 | | 40 | 45 | El | 45 | |
| Quantitative Methods: | | | | | | | | |
| Statistics | | 45 | 45 | 40 | | 90 | | |
| Econometrics | 48 | 45 | 45 | 40 | 45 | El | 45 | 45 |
| Research Methods: | 48 | 45 | 30 | 20 | 45 | 30 | 45 | 45 |
| *Other Core (Compulsory) Courses*:[e] | | | | | | | | |
| Theory: | | | | | | | | |
| Economic Growth and Development | El | | | El | 45 | El | na | El |
| Environmental and Natural Resource Economics | El | El | | | 45 | El | 45 | El |
| Methods: | | | | | | | | |
| Mathematical Economics | | El | 45 | 40 | | 30 | | |
| Computer Science | El | 45 | | | | 45 | | |
| Survey Methodology | | | | | | 30 | | |
| Operations Research | 48 | El | 30 | 40 | | | | |
| Project Planning and Analysis | El | Inc | El | 20 | | | 45 | El |
| Applied Agricultural Economics Analysis | El | El | | | | | | 45 |
| Applied: | | | | | | | | |
| Farm Management | 48 | El | | El | 45 | El | 45 | |
| Agricultural Marketing | 48* | 45 | 45 | El | 45 | El | 45 | El |
| Agribusiness Management | 48 | 45 | El | | | El | 45 | El |
| Agricultural Price Analysis | Inc | El | | | 45 | El | Na | |
| Agricultural Finance/Credit | 48 | El | | | | | 45 | |
| Agricultural Extension | | | 30 | | | El | | El |
| Rural Development | | | | | | | 45 | |
| *Core (Compulsory) Courses (Total Nos. to Take)* | 9 | 9 | 7 | 8 | 10 | 7 | 9 | 5 |
| *Elective Courses*: | | | | | | | | |
| International Trade | 48 | 45 | 45 | | | 30 | 45 | 45 |
| Agribusiness Management and Development | 45 | 45 | 30 | | | 45 | | 45 |
| Rural Sociology | | | | | | 45 | | na |
| *Elective Courses (Total Number to Take)* | 1 | 4 | Un | 5 | 0 | Un | 1 | 3 |
| *Totals:* | | | | | | | | |
| *Numbers of courses* | 10 | 13 | | 13 | 10 | | 8 | 8 |
| *Total Hours: Compulsory Courses* | 405 | 405 | 270 | 260 | 520 | 300 | 256 | 225 |
| *Elective Courses* | 45 | 180 | | 240 | 0 | | 32 | 135 |
| *Grand Total* | 450 | 585 | | 500 | 520 | | 288 | 360 |

[a] Note that the course name in this column may not be exactly the same as appears in the department list - instead more generic names are used in this table. Also blank cells indicate that the course is not available in the department.

[b] A = Alemaya, B = Egerton, C = Moi, D = Nairobi, E = Bunda, F = Sokoine, G = Makerere, H = Zimbabwe. Only those with masters' degrees now operational are included.

[c] The numbers in the columns refer to lectures with labs/tutorials being 0.5 of a lecture hour. 'El' means offered as an elective rather than compulsory course. '*' means that another subject 'Inc' is included with it. 'Un' means unable to ascertain - therefore lower cells in column that require information about electives could not be calculated.

[d] These are compulsory courses most departments take (i.e., five at least).

[e] These are other compulsory courses a few departments take (i.e., less than five).

Table 11 — Type of job and type of agricultural economics training required

| Employer | Emphasis (R,D,T)[a] | Relative Emphasis on Level[b] | | |
|---|---|---|---|---|
| | | Micro | Meso | Macro |
| Public Sector: | | | | |
| Finance | R, D | Some | High | High |
| Planning | R, D | High | High | Some |
| NARS | R | High | High | Low |
| Economic Policy Research Institutes | R | High | High | High |
| Private Sector: Commercial | | | | |
| Banking | D | High | High | Low |
| Agribusiness | D | Some | High | Low |
| Private Sector: Non-Profit Developmental: | | | | |
| NGO, CBOs | D, T | High | High | Low |
| Farmers Associations, Cooperatives | D, T | High | High | Low |

[a] R = research, D = developmental, and T = training.
[b] In the columns below a subjective evaluation is made of the relative importance of training at the micro, meso, and macro levels as far the specific jobs are concerned.

Table 12 — Comparisons between different models for improving agricultural economics capacity in the region

| Issue | Individual Department | Twinning | Centre of Excellence | AERC |
|---|---|---|---|---|
| Approach | Responsibility of department to seek external help. | Seek special relationship with institution outside continent. | Focus on one institution in region to provide training. | Regionally based organization "owned" by the participating institutions |
| Advantages | Encourages development of departmental vision/ leadership. | Can build on former/earlier institutional relationships - where often reservoir of goodwill. | • Provides a focal point for donors.<br>• Good to have something left in place after a regionally based initiative is completed. | • Good track record - experience, transparency and credibility with donors and recipient institutions.<br>• Basket of donors (15 at moment) who have continuously supported AERC.<br>• Potential economies of scale and low start-up costs.<br>• Complementarity/synergism that can be exploited between agricultural economics and economics.<br>• Multi-faceted approach - training (masters and soon Ph.D.), research and equipment.<br>• "Owned"/controlled by the beneficiaries (recipient institutions).<br>• The JFE provides opportunity for getting best instructors in subject area, offering subjects for which little/no expertise exists within individual universities, and permits offering of topics that may be sensitive or difficult to approve within specific universities. |
| Disadvantages | • Likely to be piecemeal approach, possibly with multiple funding sources with differing time horizons and agendas.<br>• Stronger departments are likely to fare better than weaker ones - further increasing inequitabilities in the region.<br>• Potentially lack of sustained support over long period. | • Funding not assured - would require joint initiatives in seeking it.<br>• Those departments with strong historical linkages are likely to fare better - further increasing equitabilities in the region.<br>• Possible paternalism of external institution.<br>• Potentially becomes too dependent on external institution and reduced diversity in own institution. | • Politically difficult to choose one center.<br>• Unequal distribution of donor funds.<br>• Creates regional tensions on the part of the "have not" institutions. | • Category B departments helped greatly but Category A departments helped only at the margin and don't receive so much overall benefit.<br>• Nothing physical/tangible left on completion of the regional training initiative.[a]<br>• Adding on agricultural economics when just mounting new initiative (i.e., Ph.D. level training).<br>• Whether possible to attract new basket of donors without compromising funding of current economic initiatives?<br>• Need to expand AERC size. |
| Degree of risk | High - dependent on department leadership and lack of fickleness on part of donors. | High - very dependent on goodwill and commitment of external institution and joint success of attracting funding on a sustained basis. | Medium - very dependent on the economic and political climate of the country hosting the Centre. | Lowest - because of potential donor diversity and being somewhat insulated from the economic and political "hiccups" in the region. |
| Probability of: | | | | |
| Helping region as a whole | Poor | Poor | Reasonable | Best |
| Encouraging regional collaboration | Poor | Poor[b] | Reasonable | Best |
| Developing African ownership | Poor | Poor[b] | Reasonable | Best |
| Developing peer groups in region | Unlikely | Poor[b] | Reasonable | Best |
| Equitable benefit to region | Poor | Poor | Somewhat | Best |
| Success | Low | Low | Medium | Highest |

[a] However, what would be left is a "network" of individuals and institutions that have interacted and collaborated over a considerable length of time.
[b] More likely to develop closer links with external institution

Table B2 — M.Sc. courses in agricultural economics, Alemaya[a]

| Compulsory Courses | Elective Courses |
|---|---|
| Year I: Semester I | Year I: Semester I |
| Research Methodology (3) | Computer Applications[b] |
| Microeconomics (3) | |
| Economics of Agricultural Production (3) | |
| Operations Research Methods (3) | |
| Econometrics (3) | |
| Year I: Semester II | Year I: Semester II[c] |
| Macroeconomics (3) | International Project Planning and Analysis (3) |
| Ag. Marketing and Price Analysis (3) | Agricultural Policy Analysis (3) |
| Seminar in Ag. Economics (1) | Farm Household Models (3) |
| Farm Management (3) | Economics of Agricultural Development (3) |
| Ag. Credit and Finance (3) | Agribusiness Management (3) |
| | Environmental and Resource Economics (3) |

[a] The figures in brackets are the credit hours. One credit hour is equivalent to one contact hour of lecture or 2-3 hours of laboratory or field work per week. There are 16 weeks in a semester. For example, 3 credit hours are equivalent to 48 contact hours of lecture.
[b] This is graded on pass/fail basis.
[c] Choose at least one of the following.

Table B3.1 — M.Sc. courses in agricultural economics, Egerton[a]

| | Elective Courses | |
|---|---|---|
| Compulsory Courses | Choose One of the Following | Choose Three of the Following |
| Microeconomics | Agricultural Organisation Management | Agricultural Finance |
| Macroeconomics | International Ag. Trade | Agricultural Accounting |
| Statistics | Resource Economics | Agricultural Price Analysis |
| Computer Science | Operations Research and Programming | Marketing Management |
| Ag. Marketing | Methods | Market Research |
| Production Economics | Mathematical Economics | Agricultural Cooperatives |
| Research Methods | | Agricultural Policy Analysis |
| Econometrics | | Agricultural Development |
| Agribusiness | | Agricultural Project Analysis |
| | | Farm Management |
| | | Crop Enterprise Management |
| | | Livestock Enterprise Management |
| | | Ag. Organisation Management |

[a] All courses are 45 contact hours.

Table B3.3 — M.Phil Courses in Agricultural Economics, Moi[a]

| Core Courses | Elective Courses |
|---|---|
| Macroeconomics (3) | Agricultural Marketing Policy/Development (3) |
| Mathematical Economics (3) | Economic Planning (3) |
| Statistics (3) | International Trade (3) |
| Econometrics (3) | International Agricultural Trade Policy (3) |
| Operations Research (2) | Advanced Agribusiness Management (3) |
| Research Methods (2) | Project Planning, Monitoring and Evaluation (3) |
| Agricultural Extension (2) | Agricultural Administration and Management (3) |
| | Health Care Economics (3) |
| | Petroleum, Oil and Mineral Exploration Economics (3) |

[a] Figures in brackets indicate the number of units. Each unit equals 15 contact hours.

| | Option[a] | | | | |
|---|---|---|---|---|---|
| Agric Marketing | Agric. Marketing | Agric. Cooperatives | Resource Economics | Farm Planning/ Management | Agric. Development |
| Agricultural Marketing (3) | Yes | Yes | | | |
| Farm Management (3) | Yes | | | Yes | |
| Agribusiness Management (2) | | Yes | Yes | Yes | |
| Agricultural and Food Policy (2) | Yes | | | | Yes |
| Agricultural Finance (2) | | Yes | | Yes | |
| Production Economics (2) | | | Yes | Yes | Yes |
| Resource Economics (3) | | | Yes | | Yes |
| Development Economics | | | | | Yes |
| Cooperative Management (5) | | Yes | Yes | | |
| Agricultural Market/Price Analysis (2) | Yes | | | | |
| Advanced Farm Management (3) | | | | Yes | |
| Advanced Resource Economics (3) | | | Yes | | |
| Advanced Agricultural Marketing (3) | Yes | | | | |

[a] Figures in brackets indicate the number of units. Each unit equals 15 contact hours.

Table B3.4 — M.Sc. courses in agricultural economics, Nairobi[a]

| Compulsory Courses (All Must Be Taken) C | Elective Courses (Three of Four Must Be Taken -- 40 Hours Each) S | Option Courses (One of Four Must Be Taken -- 80 Hours Each) O |
|---|---|---|
| Economic Theory (40 hrs) | Agric. Marketing | Adv. Fm. Management |
| Mathematical Economics (40 hrs) | Farm Management | Adv. Ag. Marketing |
| Statistics (40 hrs) | Econ./Manag. of Food Industry | Adv. Ec./Manag. of Food Industry |
| Econometrics (40 hrs) | Development Ec./Ag. Policy | Adv. Development Economics |
| Operations Research (40 hrs) | | |
| Production Economics (40 hrs) | | |
| Project Planning and Analysis (20 hrs) | | |
| Research Methods (20 hrs) | | |

[a] C = compulsory subjects; S = 3 of 4 must be chosen; O = 1 of the 4 must be chosen.

Table B4 — M.Sc. courses in agricultural economics, Bunda College[a]

| Semester 1 | Semester 2 |
|---|---|
| Microeconomic Theory | Price Analysis |
| Farm Management | Research Methods for Social Sciences |
| Agricultural Price Analysis | Macroeconomic Theory |
| Agricultural Marketing | Theories of Economic Development |
| Econometrics | Environmental/Natural Resource Economics |
| Production Economics | Student Seminars |

[a] All courses except the Students' Seminars (20 contact hours) and Agricultural Price Analysis (60 contact hours) are 45 contact hours (i.e., 30 hours lectures and 15 hours of practicals). No electives appear to be offered.

Table B7 — M.Sc. courses in agricultural economics and agribusiness, Sokoine University[a]

| Compulsory Courses | | | Elective Courses | | |
|---|---|---|---|---|---|
| | Hours | | | Hours | |
| Course Name | Contact[b] | Credit | Course Name | Contact[b] | Credit |
| Intermediate Microeconomics | 36 (18) | 1.5 | Farm Planning/Management | 45 (30) | 2.0 |
| Intermediate Macroeconomics | 24 (12) | 1.0 | Production Economics | 36 (18) | 1.5 |
| Mathematical Economics | 30 (---) | 1.0 | Advanced Resource Economics | 36 (18) | 1.5 |
| Statistics | 60 (60) | 3.0 | Economic Development | 36 (18) | 1.5 |
| Survey Methodology | 24 (12) | 1.0 | Economic Planning | 36 (18) | 1.5 |
| Research Planning/Management | 30 (---) | 1.0 | Agricultural Price Analysis | 24 (12) | 1.0 |
| | | | Adv. Agricultural Marketing | 36 (18) | 1.5 |
| | | | Internat. Ag. Trade Policies | 24 (12) | 1.0 |
| | | | Econometrics | 36 (18) | 1.5 |
| | | | Adv. Micro-Planning Methods | 36 (18) | 1.5 |
| | | | Rural Sociology | 36 (18) | 1.5 |
| | | | Agricultural Extension | 24 (12) | 1.0 |
| | | | Agricultural Admin. Manag.c | 36 (18) | 1.5 |
| | | | Food Demand Analysis | 30 (30) | 1.5 |
| | | | Microcomputer Data Handling | 30 (30) | 1.5 |

[a] Students have to take a total of 12 credit hours.
[b] The first figure reflects lecture hours and the figure in brackets reflects other contact hours in terms of tutorials, seminars, and practicals.
[c] In the analysis in Table 10 in the main report this is assumed to be an agribusiness course.

Table B8a — M.Sc. courses in agricultural economics, Makerere

| Core Courses[a] | Electives[b] |
|---|---|
| Microeconomics | Agricultural Marketing and Finance |
| Macroeconomics | Agricultural Development and Farm Management[c] |
| Production Economics | Project Analysis, Policy and Implementation |
| Farm Management and Agribusiness | Agribusiness |
| Econometrics I | Workshops and Seminars[d] |
| Econometrics II | Agricultural Extension[e] |
| Rural Development and Resource Economics | |
| Research Design | |

[a] All are required. This amounts to 28 course units where a course unit is one contact hour per week per semester.
[b] At least one elective must be taken.
[c] Includes research methodologies, food processing economics, industry economics, and the export diversification drive in Uganda.
[d] Includes farming systems approaches to integrated rural development, food supply policy, livestock economics, and agricultural mechanisation and irrigation economics.
[e] Is one of the courses taught by the Department of Agricultural Extension and Education.

Table B8b — Courses in the MABM, Makerere[a]

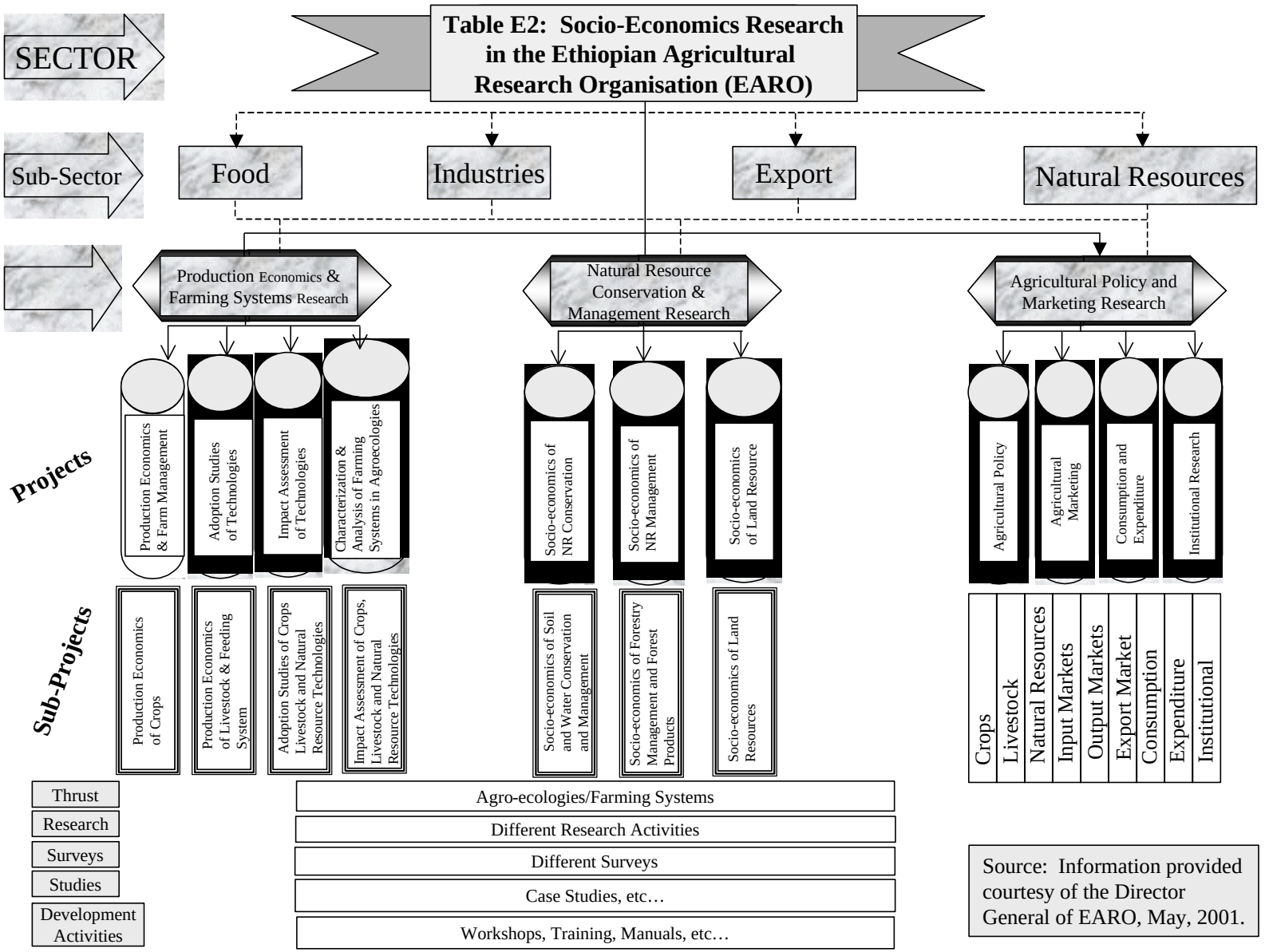
| Semester 1 (Compulsory) | Semester 2 (Compulsory) | Semester 2 (Electives)[b] |
|---|---|---|
| Decision Analysis for Business | Human Resource Management | Agricultural Policy Analysis |
| Financial Management | Research Methodology in Agribus. | Management Information Systems |
| Strategic Management | Agric. Marketing Management | Agribusiness Environmental Anal. |
| Agribusiness Prodn. Management | Graduate Seminars | International Agricultural Trade |
| Business Economics | | Agricultural and Food Marketing |
| Graduate Seminars | | Natural Resource Management |
| | | Investment Project Analysis |
| | | Animal Resource Management |
| | | Food Business Management |
| | | Agronomy/Crop Production |

[a] Each course is to consist of 45 contact hours (30 hours lectures and 15 lab/tutorial/practical work hours). The Graduate Seminars total 30 hours.
[b] Three electives to be chosen.

Table B9 — M.Sc. courses in agricultural economics, Zimbabwe[a]

| Compulsory Courses | Choose Three of the Following Electives |
|---|---|
| Advanced Microeconomic Theory for Agriculture | Agricultural and Economic Development |
| Advanced Macroeconomic Theory for Agriculture | Advanced Agricultural Policy Analysis |
| Quantitative and Research Methods | Environmental and Natural Resource Economics |
| Applied Econometrics | Economic Analysis of Agricultural Projects |
| Applied Agricultural Economic Analysis | Agribusiness Development |
| | Agribusiness Management |
| | Agricultural Marketing |
| | Agricultural Planning and Investment Analysis |
| | Agricultural Finance |
| | International Agricultural Trade Policy |

[a] Each course takes 45 hours.




Source: Information provided courtesy of the Director General of EARO, May, 2001.

# APPENDICES

# APPENDIX A — TERMS OF REFERENCE

## A1 PROJECT

The project title is "Status of Agricultural Economics in the Countries of the 2020 Vision Network for East Africa and ECAPAPA." The terms of reference were prepared by the International Food Policy Research Institute located at the following addresses:

- International Food Policy Research Institute, 2033 K Street, N.W., Washington, D.C. 20006, U.S.A. Telephone (202) 862-5600, Fax: (2020) 467-4439, Email: r.pandya-lorch@cgiar.org.
- International Food Policy Research Institute — 2020 Vision Network Office, Colline House, 4 Pilkington Road, P.O. Box 28565, Kampala, Uganda. Telephone: [256] (41) 234616, Fax: [256] (41) 234-614, Email: f.opio@cgiar.org.

The study itself was conducted in collaboration with ECAPAPA and AERC and was undertaken with support from the Nairobi office of the RF.

## A2 OVERVIEW

Policymaking for agricultural development in Eastern Africa is constrained by lack of capacity to undertake research to generate relevant information to guide decisions affecting agriculture. Many academic institutions in the region and for that matter in Sub-Saharan Africa (SSA) provide generalized training with limited focus on agricultural economics. Besides, graduates often lack exposure and skills in carrying-out policy-relevant research. Therefore, the lack of policy-relevant information has forced policymakers to make decisions on critical policy issues based on value judgements, which often have serious adverse consequences in the longer term. Yet such ad-hoc decisions can be avoided, if well-researched information is made available to policymakers in a timely manner. It is apparent that training and capacity strengthening at the masters and Ph.D. levels are necessary conditions for enhancing policy research and analysis and thus making good (agricultural) policies. Moreover, building institutional capacity and improving training can also strengthen local organizations and enhance overall capacity for decisionmaking at all levels.

But, strengthening the policymaking process for agriculture also requires strengthening capacity at institutional levels with the aim of providing relevant training to graduates. The local activity in this regard would involve undertaking both theoretical and applied training at the masters and Ph.D. levels.

## A3 OBJECTIVES

The overall objectives of this consultancy are to review the status of agricultural economics in the network countries (Ethiopia, Kenya, Malawi, Mozambique, Tanzania, and Uganda, plus two other non-2020 Vision Network member countries— Rwanda and Zimbabwe) to determine supply gaps in relation to demand for agricultural economics graduates and establish where capacity in the discipline is weak and how this might be improved. A number of searching questions need to be addressed, including the following:

- What are the supply gaps relative to the demand for agricultural economics graduates in the region?
- To what extent is capacity in agricultural economics and related disciplines weak?
- Is the current masters and Ph.D. training appropriate to prepare future policy analysts and researchers?
- What is the appropriate entry point to providing and improving training in applied microeconomics in the region?

To address these questions, a short-term consultancy for the duration of 80 person-days is being initiated. The consultancy, comprising of one prominent agricultural economist recruited internationally and one macroeconomist recruited from the region will cover the six network countries and the ECAPAPA countries starting May 14, 2001. The consultants will be required to implement the tasks as listed in the terms of reference (TOR).

A sensitisation workshop will be held soon after preparation of the report. This stakeholder workshop will provide a forum for interested parties to interact with each other and discuss their expectations, views, and demand preferences relative to types of graduates to be trained. A facilitator will be provided to guide the deliberation while creating the climate for a well-focused discussion.

The choice of participants of the stakeholder workshop is crucial. Hence, representation from member countries will be based on their potential ability to contribute to this discussion.

Dr. Fred Opio, Coordinator of IFPRI's 2020 Vision Network for East Africa, Uganda, will supervise this activity in collaboration with the African Economic Research Consortium (AERC) and the East and Central Africa Program for Agricultural Policy Analysis (ECAPAPA).

**A4 TERMS OF REFERENCE (TOR) FOR CONSULTANTS**

To this extent, the consultants will be expected to:

- Review the survey report on institutional capacity with reference to applied microeconomics in Eastern and Southern Africa sponsored by Rockefeller Foundation in 1998 (Norman 1998).
- Critically review the status of agricultural economics discipline in the region, focusing especially on the supply gap and providing some description on the demand for agricultural economic graduates.
- Assess the institutional set-up in the region and their ability to provide enhanced capacity for masters and Ph.D. training programs.
- Review existing masters and Ph.D. training programs and determine the extent of their suitability, weaknesses, problems, and the needs that require addressing.
- Provide a list of criteria to identify appropriate qualities and capabilities required by institutions to offer masters and Ph.D. training programs and suggest alternative programs and training providers available within and outside the region.
- Suggest ways to improve agricultural economics in the Network and ECAPAPA-member countries.
- Establish the views of institutions and departments on the various regional networks' contributions towards research.
- As a way forward, suggest the appropriate entry points for training in the discipline.
- At the end of field visits, prepare and present preliminary findings at an in-house meeting of collaborative partners (suggested date June 16, 2001 in Nairobi, Kenya).
- Prepare a draft technical report providing suggested recommendations to be presented at a one-day stakeholder workshop to be organized by the 2020 Network in collaboration with AERC and ECAPAPA to be held at an appropriate later date.
- Incorporating comments from the stakeholders' workshop, revise, and submit in a computer diskette (typed in Microsoft Word or WordPerfect) and five hard copies of the technical report to The 2020 Vision Network for East Africa.

**A5 EXPECTED OUTPUT**

A technical report should be produced, including where appropriate, suggestions and recommendations, which considers the following aspects, namely:

- A comprehensive report on the status of agricultural economics and other related disciplines in the network and specific ECAPAPA countries and suggestions on how to improve them.
- A list of institutions in the network countries offering masters and Ph.D. programs, their background, capabilities, and any requirements for improving on their present status.
- Indication of training needs, suggested entry points and types of training suitable, which should preferably be offered in the network countries to build required policy-oriented research capacities.

After presenting the preliminary findings of the report at an internal steering group meeting in Nairobi (i.e., consisting of representatives of IFPRI, ECAPAPA, AERC, and the Rockefellor Foundation) on June 16, a revised version will be prepared for presentation at a stakeholder workshop to be held at a later date (i.e., in early October). The objective of the stakeholder workshop is to encourage interactive discussion, focusing on the demand side relative to long-term supply of graduates and possible ways to encourage improvement of agricultural economics capacity in the region. Following this workshop, there will be a donor/stakeholder and collaborator sensitization and marketing workshop, with the aim of attracting donor funding.

# APPENDIX B — DETAILS ON AGRICULTURAL ECONOMIC-RELATED DEPARTMENTS

## B1 INTRODUCTION

The following sections give some information on the universities, faculties of agriculture, and agricultural economic departments visited. This information was gleaned from our discussions and materials given to us. As such, apart from data on the masters' degree in agricultural economics and data that were used in completing the tables in the main part of the report, analogous types of information were not always collected in each place. Rather most of the information presented represents what emerged during the interactive discussions that took place. Information presented in the main part of the report is not generally repeated in this appendix. A small amount of information on most of the universities is presented in this chapter.

## B2 ETHIOPIA: ALEMAYA UNIVERSITY OF AGRICULTURE

### *B2.1 The University*

- Alemaya started as a College of Agriculture and Mechanical Art in 1952 with assistance from Oklahoma State University under a USAID contract. In 1963, the college was integrated with other colleges thus forming the national university, Haile Selassie (i.e., later Addis Ababa) University. It was then upgraded in May 1985 into a full-fledged university.
- The university has about 1,500 continuing education students, 300 diploma students, 1,900 undergraduate students, and 100 postgraduate students.
- Alemaya University of Agriculture has:
  - Three teaching faculties, namely: a College of Agriculture, Faculty of Education, and Faculty of Health Sciences.
  - A School of Graduate Studies.
  - A Division of Natural and Social Sciences.
  - A Continuing Education Program.
  - Two Research Centers.
- Alemaya has linkages with a number of universities outside the country both in Europe (e.g., Swedish University of Agricultural Sciences, University of Ghent) and North America (e.g., Langston University, Oklahoma State University).

### *B2.2 Department of Agricultural Economics*

- Currently, the Department of Agricultural Economics only offers an M.Sc. degree in agricultural economics. In 1996, the Government of Ethiopia decided to scrap undergraduate programs in agricultural economics and agricultural engineering.[46]
- However, efforts are currently being made to try and get approval for a bachelor's degree in Agribusiness Management.
- The M.Sc. program consists of a set of core courses amounting to a total of 28 credit hours. Students are also expected to complete at least 3 credit hours of elective courses in addition to a thesis of 12 credit hours.
- The courses in the M.Sc. degree in Agricultural Economics are given in Table B2.
- Recently a part-time M.Sc. degree in Agricultural Economics has started using the same course structure. Students are sponsored by NGOs in Ethiopia and take time off from their professional studies to do the course during two three-month periods over a two-year period. They are also expected to do a thesis.

## B3 KENYA

### *B3.1 Egerton University*

[46] The university administration, the Department of Agricultural Economics and the Ethiopian Agricultural Economics Association were very much opposed to the government decision and are still working hard to try and reverse it.

*B3.1.1 The University*

- Egerton was converted to full university status 1987 and currently has about 8,000 undergraduates and 100 postgraduate students.
- It offers both undergraduate and postgraduate studies. Under the staff capacity-building program, training fees and tuition are waived — that is for M.Sc. degrees.
- The university has the following departments: Agricultural Economics and Agribusiness, Agricultural Engineering, Agronomy, Animal Health, Animal Science, Dairy and Food Technology, Horticulture, and Natural Resources.
- Both diplomas and degrees are offered:
  - T B.Sc. degrees are offered in: Agriculture, Agribusiness Management, and Agricultural Economics, Agricultural Engineering, Animal Production, Dairy Science and Technology, Horticulture, and Natural Resource Management.
  - T M.Sc. degrees are offered in Agricultural Economics, Agronomy, Animal Production, and Horticulture. The Department of Agricultural Economics and Agribusiness Management wants to offer an M.Sc. in Agribusiness Management.

*B3.1.2 Department of Agricultural Economics*

- The department has been innovative in offering bachelor-level degrees that are attractive to potential employers.
- Courses taught at the M.Sc. level are given in Table B3.1.

### *B3.2 Jomo Kenyatta University of Agriculture and Technology*

- It was founded as a middle-level college in 1981 following a technical agreement between the Governments of Kenya and Japan, and became a full university in 1994. Japanese assistance has recently stopped.
- There are three faculties: Agriculture, Science, and Engineering.
- It offers diplomas, and B.Sc., M.Sc. and Ph.D. degrees
- There are three departments in the Faculty of Agriculture: Agricultural Engineering, Food Science and Technology, and Horticulture.
- There is no department of agricultural economics but agricultural economics courses are taught in the Institute of Human Resources Development, although an agricultural economics department is likely to be created in the near future (i.e., within four years). There is a total of four agricultural economics academic staff in the institute.
- Agricultural economics courses are offered as service courses. There are no options or degrees in agricultural economics. However, there are faculty registered for Ph.D.s in agricultural economics from the university. The current Director of the Human Resources Development Institute, who is an agricultural economist, is currently supervising three Ph.D. candidates.

### *B3.3 Moi University*

Because of time limitations it was not possible to visit Moi University — therefore this material is taken from a report produced in 1998 (Norman 1998).

*B3.3.1 Faculty of Agriculture*

- It was the second university formed in country, namely in 1984. The Faculty of Agriculture was established in 1992, with Departments of Agricultural Marketing and Cooperatives, Crop Production and Seed Technology, Rural Engineering, and Soil Science.
- There are only postgraduate programm in agriculture — apart from the B.Sc. in horticulture, which was due to commence in 1998. The M.Phil. degree was started in 1996.
- The Chepkoilel Campus, where agriculture is located, is separate from the main campus (50 kilometer away), and suffers in terms of facilities (i.e., library, computers, etc.).
- A total of 41 agriculture postgraduate students were admitted in 1997:
  - T The breakdown was as follows: Agricultural Marketing and Cooperatives (18 students), Crop Production and Seed Technology (14), Soil Science (6), and Rural Engineering (3).

- **T** However, they are lucky if 50 percent actually start the degree because of a lack of sponsorship.

*B3.3.2 Department of Agricultural Marketing and Cooperatives*

- The department offers service courses for the Horticulture B.S.c degree but no other undergraduate training is undertaken (i.e., at least up to 1998).
- The M.Phil. program started in 1994. There are five options: agricultural marketing, agricultural cooperatives, resource economics, farm planning and management, and agricultural development and policy (see Table B3.3).
- On paper there is a Ph.D. but in practice it is not offered because of a lack of staff since course work is required.
- In 1998 there were only three staff, all Ph.D.s, in department. They received help in teaching: two from the Economics Department and one from the School of Environmental Studies all at Moi, one part-time person from Nairobi and one part-time person from Egerton.
- There is a staff proposal to add B.Sc. service teaching and start the Ph.D. Estimated needs were: one Professor, two Associate Professors (already filled), two Senior Lecturers, and four Lecturers (one filled).
- The staff believes it would be best/most efficient to specialize at the postgraduate level across Kenyan universities.
- In 1998 there was only one computer, which was provided under Forum auspices.
- The staff believes the job market for agricultural economists is very good although prior work experience is an advantage.

### *B3.4 Nairobi University*

*B3.4.1 Faculty of Agriculture*

- The Faculty of Agriculture started in July 1970 and 180 per year are admitted at the undergraduate level.
- Departments include: Agricultural Economics, Agricultural Engineering, Animal Science, Crop Science, Food Technology and Nutrition, and Soil Science.
- Degrees consist of:
  - **T** B.Sc.: Agriculture, Agricultural Engineering, Food Science and Technology, and Range Management.
  - **T** There are also M.Sc. and Ph.D. degrees in the different areas of specialization.

*B3.4.2 Agricultural Economics*

- There is no B.Sc. degree in agricultural economics per se but:
  - **T** The department services other degrees — teaches courses in economic theory, farm management, agricultural marketing, agricultural policy, agricultural extension, rural development, resource economics, and farm accounts and planning. Also it offers service courses in the Faculties of Veterinary Medicine, Science, and Architecture.
  - **T** There has been an option in agricultural economics in the fourth year of the general B.Sc. Agriculture degree since 1994 and about 30 percent of students choose it.
  - **T** A new B.Sc. in Agribusiness is starting this year (2001) and approval is being sought for B.Sc. degrees in Agricultural Economics and Natural Resource Economics.
- There is an M.Sc. degree in Agricultural Economics:
  - **T** From 1970 to 1973 it consisted of a thesis only and since then has consisted of course work plus a thesis.
  - **T** There used to be a number of foreign students and for foreigners it was considered to be one of the premier departments in Eastern/Southern Africa.
  - **T** About 75 percent of the students graduate.
  - **T** There are eight 40-hour compulsory courses in the first three semesters and one of four options (i.e., agricultural marketing, farm management, food economics and management, and development economics) is chosen in the fourth semester consisting of 80 contact hours.
  - **T** Not more than 50 percent of the applicants in any one-year (on average) have been admitted. Numbers are sometimes low because of a lack of scholarships in recent years. There are only two Deutscher Akademischer Austauschdienst (DAAD) scholarships in agricultural economics (i.e., out of a total of 15 for the Faculty of Agriculture).
- There is the potential for Ph.D. degrees and in fact there are faculty currently registered for it both from the department and from other institutions.

- There are a number of areas of specialisation in the department including: farm management, production and resource economics; agricultural marketing, international trade and agribusiness management; development economics, agricultural extension and agricultural policy; and economic theory and quantitative methods.
- The equipment situation has improved somewhat since 1998 with AERC providing computer and printer hardware because of participation by faculty as resource persons in the JFE. The department would very much like to have Power Point projection capacity.
- Explicitly mentioned weaknesses consisted of: lack of student sponsorship; poor facilities/support; and lack of funding for research/international meetings, Internet access, and for training.
- The morale in the department has improved since the time of the earlier visit (Norman 1998).

## B4 MALAWI: THE UNIVERSITY OF MALAWI

### *B4.1 The University*

The University of Malawi consists of five geographically separated colleges. The two which are of concern to this report are Chancellor (i.e., located at Zomba) (see Appendix C4) and Bunda (i.e., located at Lilongwe) Colleges. The former houses the social sciences and the latter agriculture.

### *B4.2 Bunda College*

#### *B4.2.1 Faculty of Agriculture*

- There are about 500 students on campus.
- Bunda College has the following departments: Agricultural Engineering, Animal Science, Aquaculture and Fisheries Science, Crop Science, Home Economics/Human Nutrition, Language and Development Communication, and Rural Development.
- It has an excellent library and CD-Rom abstract databases and e-mail/Internet connection.
- It is likely it will eventually become a university in its own right.
- There is a B.Sc. in agriculture with a number of options (i.e., up to 10). Of about 120 students taking options, about 80 want to take the agricultural economics or agricultural extension options (i.e., those offered by the Rural Development Department), but only 40 (i.e., 25 agricultural economics and 15 agricultural extension) are allowed to do so.
- M.Sc. degrees are possible in: Agricultural Economics, Agricultural Extension, Animal Science, Crop Science, and Home Economics and Human Nutrition.

#### *B4.2.2 The Rural Development Department*

- The Rural Development Department consists of agricultural economics and agricultural extension.
- There is a 10 professional staff establishment — one each at the Associate Professor and Senior Lecturer levels and the rest at the Lecturer level. It consists of seven in agricultural economics and three in agricultural extension. There has been considerable attrition at senior ranks in recent years, three to other jobs and two deceased (Norman 1998). Currently there are two vacancies in agricultural economics and one in agricultural extension. Recruitment is underway. They make use of part-time lecturers.
- There is a substantial amount of service teaching at the undergraduate level while the M.Sc. degree in agricultural economics consists of course work and thesis. Courses required are given in Table B4.
- Recently (i.e., late 1990s) the department developed a strategic plan. Some of the major points were:
  - **T** Department should be broken into three departments: Agricultural Economics, Agribusiness Management, and Agricultural Extension.
  - **T** Create a Faculty of Rural Development with the above three departments, plus the Language and Communication Development Department.
  - **T** Recruit substantially more students at the undergraduate and postgraduate levels with a student: staff ratio of 10:1 instead of the current 20:1 (i.e., excluding M.Sc. level).

- **T** Implementing the above will require 19 permanent faculty members by the year 2008. Also postgraduate students and staff associates will assist in the teaching program.
- **T** Research initiatives will continue to be encouraged.

## B5 MOZAMBIQUE: EDUARDO MONDLANE UNIVERSITY

### *B5.1 The University*

- Eduardo Mondlane University has a student population of 7,500. Because of the scarcity of trained manpower, most students get employed by the time they are in their second year of the five-year degree. This impacts negatively on their completion rate and many take seven years or more, or never complete. The first degree is called Licence.
- Evening classes relating to short-term training are starting to be offered.
- Lack of English skills creates problems for staff in seeking postgraduate training in the Anglophone world.

### *B5.2 Agricultural Economics*

- There is no department of agricultural economics but there is a section dealing with agricultural economics, which is located in the Department of Crop Production and Protection in the Faculty of Agronomy and Forestry Engineering. The faculty has 500 students and is the third largest of the eight faculties of the Eduardo Mondlane University. Two other departments of the faculty are Forestry Engineering and Rural Engineering. There is a serious staffing problem in the section of agricultural economics. There is one associate professor (a Tanzanian on contract terms), one senior lecturer and two assistant lecturers. Currently, there is no option in agricultural economics at the undergraduate level and no masters' degree program in agricultural economics.
- However, there is a plan to launch in August this year (2001) an M.Sc. program in Rural Development. This is in collaboration with Larenstein International Agricultural College and Wageningen University both in The Netherlands. The program is aimed at training people to be able to formulate and implement strategies to improve the development of the agricultural sector in Mozambique. There are four main areas/options to be covered: economic policy analysis, communication and rural transformation, agribusiness, and natural resources management. Funds to support students in this program are expected from the World Conservation Union (IUCN), RF, the Nordic countries, and the Government of Mozambique. So far, 50 scholarships have been secured. Because of the shortage of staff, three strategies that are to be used in implementing the degree are:
  - **T** Students for each option will only be admitted every other year — helping to increase the sizes of the classes.
  - **T** A modular approach is to be used in the teaching of the courses (i.e., each course will be taught intensively over a short time period rather than taking two or three simultaneously over a longer period).
  - **T** Students in the different options will have some common core courses together.

## B6 RWANDA: NATIONAL UNIVERSITY OF RWANDA

### *B6.1 The University*

- The university, which is located in Butare, was started in 1963 and then closed in 1994 for about a year following the genocidal war.
- Currently there are about 4,500 students (i.e., one-third female) on a campus meant for half that number, and instruction is in both French and English. A pre-university language program is available to prepare students for the bilingual instructional system.
- There are seven faculties and three schools including the:
  - **T** Faculty of Agriculture with about 80 students, and three departments: Crop Production, Animal Production, and Soil Science.
  - **T** Faculty of Economics, Social Sciences, and Management with five departments: Economics, Political Science and Administration, Management, and Sociology.
- Normally the B.Sc. degree (i.e., Licence) is a four-year degree although agriculture is one of those that officially require five years.

- Given the acute shortage of staff in the agricultural economics and economics areas, visiting lecturers, often from outside the country, come and give a complete course in a two-week period (i.e., all other courses are suspended for that period). This is not considered desirable but necessary. Student assessment causes a particular problem for such courses.

### *B6.2 Agricultural Economics*

- There is currently no department but an area/option in agricultural economics and agribusiness has been agreed at a recently held Seminar in Curriculum Reform (May 2001) and will be activated when the staffing situation improves.
- In addition to four staff in the faculty that are being prepared to be agricultural economists, two individuals in the Department of Economics are currently undergoing M.Sc. training in Agricultural Economics in South Africa and will help in the future to teach agricultural economics courses. Of the four staff mentioned above, two are already on study leave and the other two are likely to do shortly. A USAID-funded program is providing some funding for training at Michigan State University and Texas A and M University. One of the two Ph.D. candidates is studying at the University of Ghent and the other is at Kansas State University where he is supported under a department assistantship.

## B7 TANZANIA: SOKOINE UNIVERSITY OF AGRICULTURE

### *B7.1 The University*

- It was created in 1984 from the former Faculty of Agriculture, Forestry, and Veterinary Medicine of the University of Dar es Salaam and consists of four faculties, Agriculture, Forestry, Veterinary Medicine, and Science. In addition there are three institutes: Development Studies, Continuing Education, and Center for Sustainable Rural Development.
- The university has a student body of approximately 1,200 B.Sc. and 120 postgraduate students, nearly all of the latter being at the M.Sc. level.
- The university is operating at the moment on a quarter system but is shortly to change to the semester system.
- The biggest faculty is the Faculty of Agriculture and in June 1998 it launched the Tanzania *Journal of Agricultural Sciences*.
- Departments in the Faculty of Agriculture consist of: Agricultural Economics and Agribusiness, Agricultural Engineering and Land Planning, Agricultural Education and Extension, Animal Science and Production, Crop Science and Production, Food Science and Technology, and Soil Science.
- B.Sc. degrees in the Faculty of Agriculture consist of: General Agriculture (four year degree);[47] Agricultural Economics and Agribusiness (three-year degree) — started in 1998; Agricultural Education and Extension (three-year degree) — started in 1998; Agricultural Engineering (four-year degree); Agronomy (four-year degree); Animal Science (four-year degree); Food Science and Technology (four-year degree); Home Economics (three-year degree) — started in 1998; and Horticulture (four-year degree). There are plans for most of the degrees to be reduced to three years in duration. There are now about 80 students per year graduating in the B.Sc. Agricultural Economics and Agribusiness degree.
- There are M.Sc. degrees (i.e., course work plus thesis) in the Faculty of Agriculture in: Agricultural Economics and Agribusiness, Agricultural Education and Extension, Agricultural Engineering and Land Planning, Animal Science, Crop Science, and Soil Science. Soil Science and Animal Science are most popular because they are well supported by Norwegian Agency for International Development (NORAD) (i.e., they sponsor students). DAAD also support one or two students per field.
- Ph.D.s are also possible in some fields, including agricultural economics — it currently consists of just a dissertation.

### *B7.2 Department of Agricultural Economics and Agribusiness*

- There is a great deal of service teaching in both the Faculties of Agriculture and Forestry — amounting to 150 to 240 contact hours/faculty member/year, including postgraduate students. Substantial amounts of teaching are also involved in the Agricultural Economics and Agribusiness B.Sc. degree. Hours taught have not increased significantly over the years

[47] With the advent of the B.Sc. degree in Agricultural Economics and Agribusiness there is no longer an option relating to agricultural economics in the general Agriculture B.Sc. degree although all students do receive some training in agricultural economic related subjects.

but size of undergraduate classes are much larger. Class sizes vary from 30 to 250 making personal interaction virtually impossible and a trend towards disappearance of the tutorial system.

- At the M.Sc. level, 10 per year are usually admitted but only four or five actually come because of a lack of sponsorship. There used to be more students when sponsorship was better.
- Currently there are three Ph.D. students who are sponsored by the Prime Minister's (PM's) office.
- The courses in the M.Sc. degree are given in Table B7. Depending on the electives and the thesis topic chosen, specialization is possible in: farm management and production economics, agricultural marketing, food and agricultural policy analysis, development and planning, and resource economics.
- The department has also been pursuing the designing and implementation of short courses since 1994 with both national and regional audiences. Between 1994 and 1998, for example, 13 were offered of two to six weeks in length and with a size of 5 to 20 participants. Examples of topics have been commodity policy analysis, policy implementation, food security, computer analysis, etc. Advantages of such courses are that they:
  - **T** Improve linkages with clientele in the private and public sectors.
  - **T** Help generate training materials for use in other courses.
  - **T** Provide supplemental remuneration for faculty involved.
- Ways are currently being explored to increase these activities in spite of, on occasion, potential conflicts with other responsibilities. Links with Wye College in terms of offering short courses are being explored.
- Strengths of the department are the following:
  - **T** The qualifications and relative longevity of the staff. Twelve of the 16 faculty have Ph.D.s and two of the remaining ones are on study leave for Ph.D.s. The majority are Ph.D.s from overseas — particularly Europe. The Head of Department is generally recognized as deserving the credit for this situation.
  - **T** Their initiative in forming the Agricultural Economics Society of Tanzania (AGREST) in 1997 and a proceedings publication resulting from its first conference.
  - **T** With the help of the Farming Systems Program for Eastern and Southern Africa (FARMESA), the initiative in launching the regional Journal of Agricultural Economics and Development (JAED), which after suffering from some initial administrative complications is publishing, albeit somewhat irregularly.
- Weaknesses in the department:
  - **T** There is recognized lack of expertise in the agribusiness area — although recent efforts have been made to rectify the situation with the hiring of faculty with MBAs.
  - **T** There is general recognition that the M.Sc. course work program/curricula needs revising.
  - **T** Although the microcomputer capacity has limitations it compares relatively well to analogous departments in some other universities (e.g., Moi, Makerere).
- Linkages have been, and continue to be, very advantageous to the department:
  - **T** The British Council has, since 1985, provided substantial support for faculty postgraduate-level training in the UK (one M.Sc. degree and four Ph.D.s) and facilitating links with Wye College (i.e., provision of equipment including photocopiers, sponsorship for short courses, exchange visits, preparation of teaching manuals, help in curriculum development, collaboration in research article preparation, and designing short courses in Tanzania, etc).
  - **T** An agreement with the University of Ghent, Belgium, which is also supporting a number of activities outside the department (e.g., support for the development of the Computer Center and the Food Science Department, soil and water management research program, etc.), is to provide support for sponsoring M.Sc. students in the department and supporting Ph.D. level training of departmental faculty.
- The department has drawn up a list of research priorities based on perceptions of needs and the interests of the faculty. These have been drawn up for two reasons:
  - **T** For the production of an updated university document on research priorities which is used in efforts to attract donor funding.
  - **T** For possible research to be done collaboratively with Ministry of Agriculture and Cooperative staff with the help of research funds available under Phase II of the World Bank-supported Tanzania Agricultural Research Project (TARP) Phase II, which became operational in June 1998 and currently runs for five years. Total funds of US$8,000,000 are being dispensed on a competitive basis by a committee consisting of representatives from the ministry and the university. However, access to these funds has not been as great as hoped — faculty feel greater priority has been given to proposals submitted by technical scientists.

## B8 UGANDA: MAKERERE UNIVERSITY

### *B8.1 The University*

- Makerere is one of the oldest universities in the region and, particularly during the last decade, has undergone profound changes. The university used to be completely dependent on government funding. Staff salaries/allowances, operational expenses, and student upkeep and scholarships were all taken care of by the government. The implication then was that student admission into the university was severely constrained by the government budget. Therefore, though many were qualified to enter the university, relatively few could be sponsored by the government as its priority shifted to primary education instead of higher education.
- In the late 1990s, the university adopted a more liberalized approach and opened up the university for private self-sponsorship by students who qualify to join the university. This was, in addition to the students, the government still sponsor. The university also started evening classes for those who are working and yet want to pursue degrees or diplomas. Because of this — which a recent World Bank Report refers to as a "quiet revolution" — the university now can raise 50 percent of its expenditure needs from its own revenues. According to the Vice Chancellor, this percentage is likely to be even bigger in the future.
- New degrees, which are responsive to the market requirements, have been started and Makerere, which used to have a student population of about 8,000 now has well over 20,000 students.
- Also, the Makerere administration has introduced a number of incentives (i.e., both monetary and non-monetary) for academic staff, which appear to have improved the staff retention rate.

### *B8.2 Faculty of Agriculture and Forestry*

- The faculty started giving degrees in agriculture in 1961 and currently there are eight departments: Agricultural Economics and Agribusiness, Agricultural Engineering, Agricultural Extension and Education, Animal Science, Crop Science, Food Science and Technology, Forestry, and Soil Science.
- In terms of B.Sc. degrees (i.e., excluding agricultural economics — see next section) there are the following: Agriculture with five options, namely agricultural economics, animal science, agricultural extension and education, crop science, and soil science; Agricultural Engineering with three options, namely agricultural machinery, soil and water, and agricultural processing; Forestry; and Food Science and Technology. There are a total of 80 graduates per year in agriculture.
- In addition, there are M.Sc.s and Ph.D.s in most areas of specialization.

### *B8.3 Agricultural Economics and Agribusiness Department*

- In the late 1980s, many senior staff left the department to join government, private sector and various international organizations. Consequently, in 1998, there were no lecturers with Ph.D.s but now there are six well-qualified lecturers with Ph.D.s, although they still lack experience. The situation in the mid-1990s led to an initiative from Ohio State University in upgrading faculty to Ph.D. level via "sandwich" type courses being taught at Makerere on a voluntary basis by Ohio State faculty (Norman 1998).[48] However, most of these are still in the dissertation stage.
- In terms of bachelor-level degrees:
  - **T** In the general B.Sc. Agriculture degree, 40 out of 80 students do the option in agricultural economics. The popularity of the agricultural economics option has led to a quota being placed on the number choosing the agricultural economics option.
  - **T** The three-year B.Sc. in Agricultural Economics is on hold because of staff constraints while the three-year BABM degree is starting this year with a maximum intake of 50 students.

[48] In the next section, we describe the approach in detail. The reason for this is that although the initiative is a bit dated by now, it does provide a nice example of one way of building up capacity within a department when there is goodwill on the part of an external institution (e.g., because of a historical connection) (see Section 7.7).

- **T** In addition, there are about 20 choosing the agricultural economics option in the B.A. Economics degree offered in the Institute of Economics. The Department of Agricultural Economics and Agribusiness Management helps in teaching the option courses.

- As far as the masters' degree course is concerned, the first students with an MABM (Masters in Agribusiness Management) will graduate this year (2001). This degree is distinct from the M.Sc. in Agricultural Economics that has been offered for many years. In addition, a part-time MABM degree is about to start. This will have an Advisory Board consisting among others, of representatives from the private sector.
- The M.Sc. degree was revitalized in 1991 after a gap of 15 years. Between 1991 and 1996, 68 students were enrolled in the M.Sc. degree program. By the beginning of 1996, 39 had graduated, 10 were completing course work, and 17 were beginning the program. Since then the M.Sc. degree in Agricultural Economics has continued to be offered. Courses taught at the M.Sc. level for the Agricultural Economics degree are indicated in Table B8a.
- For the part-time MABM degree, the potential target group consists of individuals already in the market place (e.g., retrenched civil servants, unemployed B.Sc. holders, employees of parastatals, commercial firms, etc.) that wish to develop new skills that will enhance their productivity in their current jobs or improve their future marketability. The program is expected to be very popular and fill an increasingly important need as the private sector continues to develop. Eventually, it is hoped to attract students from elsewhere in the region. Information on the courses in the MABM for both part-time and full-time students is given in Table B8b.
- Thanks in part due to help provided by Ohio State University, the department has built up a small library and e-mail/web access.
- The job market appears very good for agricultural economics not only in government (e.g., NARS) but also in the private sector (e.g., banks, agribusinesses) and NGOs, CBOs, etc.

### *B8.4 Capacity Building in the Department of Agricultural Economics and Agribusiness — The Ohio State University (OSU) Initiative*

In the mid-1990s, the onerous teaching, advising, and research load being shouldered by the limited numbers of staff with limited formal education qualifications led to the Wessel (1996) proposal proposing the in situ development of Ph.D.s for the majority of the faculty in the department, the justification being the high costs of overseas training, the current departmental responsibilities, and the personal difficulty of individuals in mid-career going overseas for extended periods. The proposal, which was then implemented, consisted of the following:

- The program was open primarily to departmental faculty but also to staff in the NARO and governmental ministries.
- The dissertation was to be supervised either by a Ph.D. staff member at Makerere University, a Visiting Professor or someone else qualified to be a Makerere supervisor. He/she was to defend his/her dissertation in accordance with the rules of Makerere for the Ph.D. degree.
- Each Ph.D. candidate in the program was expected to complete eight courses (each 50 contact hours), taught by visiting professors from OSU in a concentrated one month period during holiday periods (i.e., when students were not in session). The courses have been: research methodology, finance, management, marketing and international trade, microeconomics, macroeconomics, resource economics, environmental economics, and project appraisal and policy analysis.[49]

By 1998, the course work component had just been completed, thanks to the commitment of OSU and financial/logistical support of various agencies particularly USAID, VOCA, and the RF. Nine individuals had taken the courses (i.e., five faculty, three NARO, and one person formerly employed by the Ministry of Finance). Unquestionably this was an important initiative and has been very much appreciated by the participants in helping them develop their own conceptual and methodological skills. However, this did not mean that there were no problems. Issues or shortcomings that were often raised were:

- There was no examination or evaluation system based on the courses.

[49] Although course work is not formally required in the Makerere Ph.D., students are sometimes required by their supervisors to take "remedial" courses to fill in "knowledge gaps".

- The "sandwich" or concentrated approach to teaching the courses made it difficult for the participants to absorb all the material and to complete an adequate number of assignments.
- The curricula of some of the courses could have benefitted from some revision.

The challenges after the end of the above program have been threefold:

- To identify suitable Ph.D. supervisors for Ph.D. students, given the paucity of agricultural economic Ph.D.s in the department.
- For the "students" to be able to obtain the requisite funds for supporting their research.
- For there to be adequate access to literature required for a quality Ph.D.
- Kraybill, who had been responsible for teaching the last of the courses in July/August 1998, addressed these in his final report to the RF (Kraybill 1998). Although there are problems with this method of building up capacity, nevertheless, it obviously has merits, and Ohio State University deserve credit for this initiative. With the increased potential of distance learning this adds another way of implementing "human capacity" in situ.

## B9 ZIMBABWE: THE UNIVERSITY OF ZIMBABWE

### *B9.1 Faculty of Agriculture*

- The Faculty of Agriculture consists of six departments: Animal Science, Crop Science, Agricultural Economics and Extension, Soil Science, Agricultural Engineering, and Environmental Science.
- The faculty now admits about 100 to 160 students to the three-year B.Sc. degree in Agriculture. This does not include those who are taking Agricultural Engineering — the Faculty of Engineering admits them and after two years they then join the Faculty of Agriculture. The option has to be decided at the beginning of the degree program. The approximate breakdown by declared option is: agricultural economics (40 to 50 students), agricultural engineering (10), animal science (10–20), crop science (30–40), and soil science (10–15). The numbers choosing agricultural economics would probably be even higher if the option could be declared later in the program when students are more familiar with what agricultural economics involves.
- Students are now being encouraged to take some courses outside the Faculty of Agriculture.
- In terms of masters' degrees:
  - They are offered in the following areas: Agricultural Economics/Agricultural Extension (22 students in it 1998),[50] Animal Science (21), Crop Science (18), and Soil Science (14).
  - M.Sc. degrees consist of course work plus thesis, while M.Phil. degrees consist of only a thesis.
- D.Phil. degrees, based on research, are also possible, in a number of areas including Agricultural Economics.

### *B9.2 Agricultural Economics and Extension Department*

- The department was established in July 1986 in the Faculty of Agriculture. Prior to 1986, agricultural economics as a subject was offered in the Department of Land Management as an option for specialization at the undergraduate level.
- The department now offers:
  - *At the Undergraduate Level*. The program (i.e., option in agricultural economics) is designed to impart specialized skills to students in applying economics principles and techniques to the study and solution of problems relating to food and agriculture. Special emphasis is placed on the: economics of agricultural production, processing and distribution; rural and agricultural development; farm-household economics and welfare; and analysis of projects/programs and policies affecting the food and agriculture and natural resources sector.
  - *At the Postgraduate Level*. The department offers an M.Sc. in Agricultural Economics. This postgraduate program was introduced in 1994 and funded by the Southern African Center for Cooperation in Agricultural Research (SACCAR)/GTZ. This is a regional program whose objectives are to provide qualified undergraduates with applied economic concepts and analytical skills entailed in identifying, analyzing and interpreting economic problems affecting

[50] They are the latest year for which we have figures available for all the M.Sc./M.Phil. degrees.

the performance of the agriculture, food and natural resource sectors. Students are admitted every other year and therefore course work is offered once every two years. Fifty percent of the students have been from other countries in the SADC region. Support in the form of eight GTZ-sponsored scholarships per student intake has now unfortunately been phased out. The courses offered are in Table B9.

## B10 SOUTH AFRICA: THE UNIVERSITY OF PRETORIA

### *B10.1 The University*

- The University of Pretoria became a fully-fledged independent university in 1930. Since then the University of Pretoria has grown into the largest residential university in South Africa.
- Today there are more than 30,000 students trained in 12 Faculties with 139 academic staff. About 7,000 of these students are postgraduates. The university has 43 research institutes and centers doing research in various disciplines.
- The student composition at the University of Pretoria has changed dramatically in the 1990s: the university is definitely no longer an exclusively white institution. White students (19,494), currently comprise 75 percent of the total student population, compared with the figure of 20,174 (98 percent) in 1990.
- Government is currently providing about 57 percent of the funds expended at the university, with the remaining coming from student fees, donations, etc. Evening classes for part-time students are becoming common.

### *B10.2 Department of Agricultural Economics, Extension, and Rural Development*

- The department has 13 staff (i.e., four Professors, two Senior Lecturers, six Lecturers, and one Assistant Lecturer) plus four temporary Technical Assistants. It is the strongest agricultural economic-related department in Eastern and Southern Africa.
- The department offers a number of degrees, namely at the B.Sc., M.Sc., and Ph.D. level. The master-level degrees can be either in Agricultural Economics or Agricultural Extension, and with or without a thesis.
- In addition to the undergraduate and graduate courses, the staff also teaches a number of service courses in other departments. At any one time, the department has a total of about 40 masters' degrees students — of which 25 are for agricultural economics — and four or five Ph.D. students.
- The main programs or fields of expertise within the department are:
  - **T** Food and agricultural policy.
  - **T** Environmental economics and policy.
  - **T** Agricultural and rural finance.
  - **T** Rural development.
  - **T** Agribusiness management.
  - **T** Agricultural extension.
- *The M.Sc. Agricultural Economics Program*. The purpose of this program is to prepare students at an advanced level for a management or research career in the fields of economics and business applied to the agricultural, agribusiness, and natural resources areas. The degree targets specifically those that have to operate at the policy and analytical level in institutions. It creates an opportunity for specialization over and above the skills acquired in the B.Sc. Agriculture degree. Areas of specialization include:
  - **T** Resource economics.
  - **T** Agribusiness.
  - **T** Agricultural and rural finance.
  - **T** Agricultural policy analysis.
- *Ph.D. Agricultural Economics Program*. The requirements for the Ph.D. degree consist of a dissertation plus courses in areas deemed deficient. There are a number of individuals from other countries in the region doing the Ph.D. on a "part-time" basis while being employed in their own countries.
- *The Proposed Regional Environmental and Resource Economics M.Sc. Degree Program*. This masters' degree, which will commence in the next year, resembles the Center of Excellence model with a JFE component (see Section 8.3 in the report). It arose out of concerns of professionals in the region who came to the conclusion that environmental related issues are not receiving the attention they deserve in current M.Sc. degrees and consequently that there was a lack of expertise in this subject area. The plans are as follows:

- Students will register for the M.Sc. in their home-country university.
- Course work for the degree will be done in Pretoria because of the department's acknowledged strength in environmental and resource economics. However, unlike the JFE approach, all courses, the core and electives, are to be taught in Pretoria by carefully selected resource persons from within and outside the region.
- On completing the courses (i.e., in a three-month period), the students will return to their home universities for the fieldwork and thesis writing. Supervisors will come from their own institutions as well as at least having one from outside the institution. The degree is to be awarded by their home university.
- Some funds have already been obtained to mount the program (e.g., from the RF) and there will be a "Governing Board" consisting of representatives of the different stakeholders.

# APPENDIX C — DETAILS ON ECONOMIC-RELATED DEPARTMENTS

## C1 INTRODUCTION

The following sections give some information on the economic-related departments visited. This information presented resulted from discussions and materials given to us. As such, apart from data that were used in completing the tables in the main part of the report, analogous types of information were not always collected in each place. Rather most of the information presented represents what emerged during the interactive discussions that took place. Information presented in the main part of the report is not generally repeated in this appendix. Some information on most of the universities is given in Appendix B.

## C2 ETHIOPIA: ADDIS ABABA UNIVERSITY

- The Department of Economic Development and Planning is part of the College of Social Sciences within the School of Graduate Studies at the Addis Ababa Campus. It is a Category B department according to the AERC classification (see Appendix D2.3).
- The department offers both undergraduate and graduate programs in economics and evening classes for part-time students are becoming very popular. For these students, the B.A. takes seven years and the number of students graduating is expected to increase from the current level of about 50 per year.
- The M.Sc. economics degree consists of the following mandatory core courses: advanced macroeconomics, advanced microeconomics, and quantitative methods (i.e., mathematics, statistics, and econometrics). Two elective courses are taken at the JFE in Nairobi (see Appendix D2.3). While not a compulsory requirement, the course on research methods is offered and typically taken by all students.
- There are plans to introduce a Ph.D. and more areas of concentration in the M.Sc. in addition to the two current ones.
- There has been a link with Oxford University with the help of European Union (EU) funding, which will shortly be coming to an end.
- The department is associated with the publication of journals (e.g., the Ethiopian *Journal of Economics*), which is linked with the 900-member Economic Association of Ethiopia.

## C3 KENYA

### *C3.1 Jomo Kenyatta University of Agriculture and Technology*

- There is no department of economics but faculty in the Institute of Human Resources Development teach economics courses as service courses in other parts of the university at the undergraduate level.
- There is an M.Sc. degree in Entrepreneurship, which consists of some economic related courses. Currently, there are 23 students enrolled and the degree consists of three semesters of course work and one semester constituting a research project.

### *C3.2 Kenyatta University*

- There is an Economics Department, but no Agricultural Economics Department.
- There is an acute lack of staff at the senior level and because of this, lecturers with only masters' degrees are allowed to teach masters' courses as long as they have substantial experience (i.e., 10 years).
- There are limited numbers of postgraduate students, the major constraint being the lack of individuals qualified to supervise thesis work.
- Apparently, consultancy levels are not very high because of a lack of contacts and poorly developed linkages. Also faculty tend to teach up to 12 hours per week.

### *C3.3 Moi University*

- The department and university were not visited because of a lack of time, although a little information is given in an earlier report, see Norman (1998).

- The Economics Department is very weak, and is located on the main campus.
- It offers B.A. and B.Ed. degrees in economics but no M.A./M.Phil. degrees.

### *C3.4 Nairobi University*

- The Department of Economics is a Category B department in the AERC classification system. It also has a linkage with the University of Antwerp in Belgium, which supports staff exchange and training.
- There are 31 faculty in the department. Fourteen faculty, 11 with Ph.D.s are involved in postgraduate studies. There are seven part-time lecturers.
- The department offers two B.A. degrees. Students in the B.A. (3:3:2:2) are required to take all the core units in the first and second years of study, while in each of the two remaining years they take all the core units plus any two electives each year. Students in the B.A. (3:3:1:1) are required to take all the core courses in the first and second year of study. In the third and fourth years, the candidates are required to take all the core units plus eight electives in each year.
- The department also offers two masters' degrees — namely an M.A. in Economics and an M.A. in Economic Policy Management. The M.A. in Economics is a Collaborative M.A. degree under the auspices of AERC. In the first year, candidates take eight units: four in the first semester and four in the second. In the second year, candidates take units in the first semester and a research paper (i.e., not a thesis) in the second semester.
- There is also a Ph.D. degree in Economics consisting of a dissertation only. On average the department graduates one or two per year.

## C4 MALAWI: UNIVERSITY OF MALAWI

### *C4.1 Chancellor College*

- The campus has about 1,500 students.
- It has good library facilities including 200,000 books, 400 periodical subscriptions, 600 publication exchange agreements, its own binding facilities, some CD-Rom abstract series, an automatic card catalogue system in the process of being developed, and an interlibrary loan facility (i.e., with other University of Malawi campuses).

### *C4.2 Economics Department*

- The Department of Economics is a Category B department in the AERC classification. Bachelors, masters, and Ph.D. degrees are possible.
- In the B.A. degree students choose four options, which in the Economics Department include international trade, agricultural economics, development economics, industrial economics, and econometrics. They can also choose options in other departments. In fact, in the current year, 19 of the 34 students chose the options in international trade and agricultural economics.
- In the M.A. degree, class sizes are suffering because sponsorship of students by the Reserve Bank and UNDP has decreased in recent years.
- Faculty teach an average of eight hours per week. Maximum class sizes are about 120 students in introductory classes decreasing to 30 to 40 by the fourth year. There is currently pressure from stakeholders to start holding evening classes and to offer part time degrees in Lilongwe and Blantyre.
- The average stated ratios between teaching, research, and consultancy work is 50:10:30 with the remaining 10 percent divided between administration and advising government.
- There is a Ph.D.-trained (i.e., Michigan State University) agricultural economist in the department who is responsible for the agricultural economics course and who also teaches and has an interest in natural resource economics. With reference to resource economics he has links with a staff member in the Department of Rural Development at Bunda College who is the Malawi Coordinator for the socioeconomic component of the Soil Fert Net.

**C5 MOZAMBIQUE: EDUARDO MONDLANE UNIVERSITY**

- The Department of Economics has a student population that ranges from 600 to 700 of which there are now expected to be about 50 graduates per year. The undergraduate economics degree called a Licence degree is a five-year program but the average completion rate is seven years, as most students become fully employed before completing their degrees. Good students are normally the first who get employed and because they are often paid well, there is no incentive to complete the program. Because of the relatively better pay they get outside the university, it makes it very difficult to recruit good students to join the staff development program.
- There is only an economics undergraduate degree and currently no masters' degree. In an effort to get the graduation rate up, the thesis that was expected to be done in the last year of the undergraduate degree is now being replaced by a comprehensive exam, which is increasing the graduating level from 20 to 50 students per year.
- One course is taught in agricultural economics and the Head of the Economics Department is, in fact, an agricultural economist with a Ph.D. from Michigan State University. The Economics Department has staff representing both economics and business. Thus, courses in the department include both economics and business types courses such as accounting, auditing, public administration, and finance.
- Salaries are lower than in government and as a result much consultancy work is done, the stated ratios between teaching, research, and consultancy work being 10:0:90 — a rather depressing picture.

**C6 RWANDA: NATIONAL UNIVERSITY OF RWANDA**

- Currently, in the Department of Economics, there is a first four-year degree in economics called a Licence degree and there are plans to have a masters' degree.
- The department has major staffing constraints. As a result:
  - **T** A couple from India (i.e., from the State of Kerala) are under contract to help in teaching. They have to teach up to 480 hours a year!
  - **T** Reliance has had to be placed on "occasional" lecturers from outside the country (e.g., from Uganda) who come for a short time (e.g., two weeks) to teach complete courses during which time lectures on other subjects are suspended. During the short period, they still have to set assignments/test/examinations for evaluating students.
- There is one course offered in agricultural economics.
- There are no M.A, programs, except for a new Makerere/University of Rwanda joint M.B.A, program that is run from Kigali via evening classes.

**C7 TANZANIA: UNIVERSITY OF DAR ES SALAAM**

- The Department of Economics is located in the Faculty of Arts and Sciences and staff do a lot of service teaching in other departments particularly in introductory microeconomics and macroeconomics. It is a Category B department in the AERC classification.
- There is a three-year B.A. degree in economics and the numbers admitted per year have been reduced from 300 to 240 as a result of raising admittance requirements. Six courses per year are undertaken (i.e., 12 units with each unit consisting of two lectures, plus one seminar/tutorial hour). In the final year, students have the option of taking one elective course, one of which is in agricultural economics.
- With reference to the M.A. degree, because it is a Category B department under AERC auspices, students take three compulsory courses in the department (i.e., micro- and macroeconomics, and quantitative methods), plus two electives at the AERC JFE facility in Nairobi. The number of students has increased from earlier levels of four or five as a result of the AERC relationship. AERC sponsors eight (i.e., four Tanzanians and four from other countries) and the Bank of Tanzania one or two. All students participate in the JFE.
- As far as the Ph.D. is concerned, it is based on a dissertation although "sandwich" courses have been encouraged for department faculty, through a special link with the University of Lund, Sweden. As a result nearly all the faculty in the department have Ph.D. degrees.
- Miscellaneous points to note:
  - **T** Because of being a Category B department it has benefitted greatly from AERC support not only in terms of student sponsorship but also in terms of microcomputers, etc.

- **T** Attrition of staff has slowed down unlike earlier years when the department lost five faculty (i.e., two full professors, two associate professors, and one senior lecturer).
- **T** When faculty leave, financial exigencies mean that the department does not always get positions back — this is serious because most attrition occurs at senior levels.
- **T** Research for publication is usually done directly by faculty, not by working with M.A. students on their theses topics. M.A. theses rarely result in publications.

## C8 UGANDA: MAKERERE UNIVERSITY

### *C8.1 Introduction*

Two institutions at Makerere University offer economic-related degrees. The more significant one in terms of numbers is the Institute of Economics, the other one being the Institute of Statistics and Applied Economics (ISAE).

### *C8.2 The Institute of Economics*

- The Makerere Institute of Economics has both undergraduate and postgraduate programs.
- At the undergraduate level, it does a great deal of service teaching, offering 11 courses on a term basis and a total of 22 courses on a semester basis, both for day and evening students.
- Since 1991, with help from the EU, World Bank, and the UNDP until 1995, the department has offered an M.A. degree in Economic Policy and Planning. Since 1995, the program has been self-financing. The number of students in 1995 is currently in the range of 25 to 30.
- In August 1998 with McGill University in Canada, a regional M.A. program in Economic Policy Management, with the help of the African Capacity Building Foundation (ACBF) and World Bank/Economic Development Institute (EDI), was launched. The Institute of Economics, the Institute of Languages, and the School of Business Studies run the program. About 25–30 students are being sponsored for this degree, which is targeted to economic policy advisers and managers.
- The major impetus for forming the MUIE was the deteriorating student/staff ratio. Full-time student equivalents (FTSEs) had grown from 689 (i.e., including 30 for M.A. students) in 1994/95 to 1647 (i.e., including 98 for M.A. students) in 1998/99. The agreed student/staff ratio for the Faculty of Social Sciences is 15:1. At the levels of FTSEs in 1945/95, the shortage of staff was 15 and this had increased to 79 by 1998/99.[51] The argument was that without an improvement in student/staff ratio it would not be possible for the faculty to upgrade themselves in terms of research and publications. It was believed that, in becoming an institute, the department would have greater autonomy in terms of hiring faculty and would be in a better position to attract donor funds. Whether or not this proves to be the case still remains to be seen, but the above situation does provide a good example of the trend that is developing with reference to economics and agricultural economics in that demands relating to undergraduate teaching could become an increasing problem in terms of being able to mount a quality postgraduate program. In the long run the aim, in addition to existing responsibilities, is to introduce a Ph.D. program based on course work and dissertation and to improve the quality of basic and applied research through setting up a research unit (i.e., the Economic Research Bureau).

### *C8.3 Institute of Statistics and Applied Economics (ISAE)*

- The Institute was established in 1978 as a regional project with the primary objective of training high-level professionals in Statistics and Applied Economics in order to meet the perceived urgent needs of 19 English-speaking countries of Africa. The present core group of countries in this regional cooperation scheme includes 11 countries namely: Uganda, Botswana, Ethiopia, Kenya, Lesotho, Malawi, Namibia, Swaziland, Tanzania, Zambia, and Zimbabwe.
- Over the last 32 years, the Institute has grown both in the scope and depth of its programs and services. It now administers three undergraduate programs and five postgraduate programs. The Institute has three departments: Planning and Applied Statistics, Population Studies, and Statistical Methods.
- The Institute has a student population of 566 of whom 519 (92 percent) are undergraduates. The total academic staff is 41. There are two full professors, one associate professor, five senior lecturers, 27 lecturers, and six assistant lecturers.

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[51] These ratios do not take into account evening classes and B.Com. external students.

- The Institute offers the following diplomas and degrees:
  - **T** Diplomas in Statistics and Demography.
  - **T** Undergraduate degrees: B.Stats., B.Sc. in Statistics and Economics, and B.Sc. in Quantitative Economics.
  - **T** Postgraduate degrees in M.Stat. (i.e., Statistics), M.A. in Demography, and Ph.D. in Demography.

**C9 ZIMBABWE: THE UNIVERSITY OF ZIMBABWE**

- The Department of Economics is, in AERC terminology, classified as a Category B department and, as such participates in the Collaborative Masters Program (CMAP).
- The department offers has B.A., M.A., and D.Phil. degrees.
- The department has 15 members of staff with 10 Ph.D.s plus four temporary Technical Assistants. The retention is very high with a mean length of service of 10 years. There is one associate professor (who is also head of department), one senior lecturer, and the rest are at the lecturer level.
- The department has a student population of 450–500 and graduates 120–150 students per year in the three-year B.A. degree. The plan is to maintain the current number of undergraduate students but to place greater emphasis on postgraduate training since other universities in the country are now offering bachelor-level degrees in economics. The department would like to provide "post-masters fellowships" of about three months to enable the masters' graduates to develop publishable papers from their theses.
- The department has benefitted substantially from AERC in terms of microcomputers, library, secretarial help, e-mail, networking, etc.
- The department regrets lack of linkages with agricultural economics and wishes to recreate them. They no longer help them in teaching economic principles, and in fact an agricultural economics course is taught by one of the agricultural economics faculty members within their own department! There is, however, some collaboration in research with agricultural economists.

# APPENDIX D — DETAILS ON NETWORKS

## D1 INTRODUCTION

Networks have become increasingly important in recent years as a way of improving human capacity and the productivity of, and efficiency in the use of, limited research and training resources. As such they have complemented and sometimes supplemented the functions of universities (Hicks et al. 1997) in:

- Financing theses, dissertations, and postdoctoral research.
- Providing training at specific stages in the research process (e.g., proposal preparation, research methodology, publication of results).
- Facilitating access to information and attendance at scientific meetings.

It is not the intention here to discuss networks in detail since these are the subject of a fairly recent comprehensive RF-sponsored report (Robinson 1998). Instead, discussion is mainly focused on points that can possibly be used in helping to build up and sustain microeconomic capacity in the region. Attention in this report is confined to those with mainly an agricultural economics/economics orientation. However, in doing so it is important to recognize the importance of other social science disciplines — these are covered in the Robinson report.

## D2 AFRICAN ECONOMIC RESEARCH CONSORTIUM (AERC)

### *D2.1 Introduction*

The mission of the AERC, founded in 1988 as a public not-for-profit organization, is to strengthen and retain local capacity for policy analysis and relevant research in the context of Sub-Saharan Africa. According to the most recent annual report (AERC 2000a), this to date is being accomplished through supporting quality peer-reviewed research, supporting M.A. training of African economists, being responsive to changing policy needs in the region, intensifying dissemination of research findings and promoting linkages with policy-interested agencies, and improving the efficiency and effectiveness of its management and finances. As far as the objectives of this report are concerned, specific points to note about AERC are as follows:

- The research and training focus of the AERC has evolved over time in response to changing needs. For example, although the research program started out with primarily, a macroeconomic, resource mobilization and stabilization emphasis, it has incorporated more recently themes relating to trade policies, poverty and income distribution, and also sector-related issues. A similar evolution has taken place in the masters training program which initially emphasized economic policy and management and more recently, with privatization, has included corporate investment and management, and courses relating to both environmental (i.e., because of concerns about environmental degradation) and health (i.e., because of concerns about HIV/AIDS) economics.
- The major research themes now embrace: poverty, environment, income distribution and labor market issues, external balance and macroeconomic management, trade, trade policy and regional integration, external and internal debt management, and financial management and domestic resource mobilization.
- Support for Ph.D. research is available under AERC, with a maximum value of about US$15,000.
- In 1993, a Collaborative Masters Program (CMAP) was initiated involving 20 universities in 15 different Anglophone countries.
- In 2002, AERC is to implement the proposed Collaborative Ph.D. Program which is intended to further strengthen teaching and research capacity in Sub-Saharan African countries.

### *D2.2 The Research Program*

The AERC Research program has four main objectives, namely to:

- Build a credible local capacity for policy-oriented research.
- Generate research results for use by policy analysts and policymakers.
- Promote links between research and policy.
- Encourage retention of high quality researchers.

The research program emphasizes quality of research and its relevance to policy, to help ensure policy credibility of the research and encourage practical application of research results.

Research supported by AERC focuses on issues relating to short- and long-term management of the economy, and the relationship between that and economic development. The bulk of AERC's support is directed at research on themes designated by the Advisory Committee, which is composed of leading African scholars, policymakers, and international resource persons. AERC encourages research to be undertaken by informally constituted teams drawn from both academia and government.

The four broad current research themes are:

- Macroeconomic policies, stabilization, and growth.
- Finance, resource mobilization, and investment.
- Trade, regional integration, and sectoral policies.
- Poverty, income distribution, and labor market issues.

A support system is established through peer review, methodological workshops and availability of literature. The consortium has a solid library and is linked to several other resource centers worldwide. Resource persons drawn worldwide enrich the technical base and the variety of relevant experiences. Methodological workshops are organized to sharpen research skills and expose the network to relevant developments.

The biannual thematic research workshops provide a way to monitor the quality of research on a continuous basis. These workshops allow for peer pressure while fostering interaction among the researchers themselves and with the resource persons. The regularity of the workshops enforces scheduled delivery of reports. The workshops provide opportunities for feedback on the design and implementation of AERC's programs. This whole process has been central in developing a sense of ownership of AERC activities by participating researchers and institutions.

Other modes of research have also been adopted such as:

- Comparative research, which provides for cross-country syntheses of completed research on specific issues and for research on issues of regional/subregional relevance.
- Collaborative research, which teams up a group of African researchers and their counterparts elsewhere on a mutually agreed theme.

These initiatives have helped sustain interest in African research outside the region, build competence through interaction, and helped create self-sustaining arrangements for financing research outside the AERC core budget.

In terms of research grant approval, the Director of Research first assesses research proposals, usually with the assistance of an international network of resource persons who may recommend them for presentation at a biannual research workshop. At the workshop, a panel of professional economists drawn worldwide assesses the proposals. Subject to approval by the AERC's Advisory Committee, proposals may be accepted with or without revision, resubmitted to another workshop and panel review, or withdrawn. Accepted proposals are funded by the AERC.

The number of grants at any time for each thematic area depends on the funds available and AERC's capacity to monitor ongoing research. In general, eight to ten new grants per thematic research group are awarded over a calendar year. Grants average about US$14,000 over a calendar year. This amount can include a modest honorarium.

There is no formal application form. However, the proposal is expected to contain, among other things, the following: background, the research issue, objectives, methodology, budget, timetable, and duration.

The proposals are assessed in terms of their substance. Considerable weight is given to intellectual honesty in identifying possible risks and shortcomings, and how the grant might assist the researchers in their own professional development.

Once the grant has been approved, researchers are expected to report regularly on their work to workshops of the relevant thematic research group held at the end of May and beginning of December every year.

AERC encourages researchers to disseminate their final reports in suitable formats for professional economists and policy makers. Final reports are externally reviewed and, following revision and approval, published in the AERC Research Series.

In addition, AERC encourages dissemination of and possible adoption of policy implications arising out of the research through providing some support for two types of seminars/workshops:[52]

- At the national level through National Policy Seminars to which individuals, who can contribute to the debate and who can influence the possible adoption of the proposed policy changes, are invited.
- At the regional or continental level through Senior Policy Seminars to which influential individuals (e.g., researchers, policymakers, donor/lending agencies/representatives) are invited to review, debate, and make possible recommendations concerning policy implications arising from the research.

### *D2.3 The Collaborative Masters Program (CMAP)*

The objective of the CMAP is to develop an economics masters program in Africa that meets international standards, is relevant to Africa needs, and can eventually be sustained from local resources. Specifically, the program is intended to meet the following two objectives:

- To train economists in advanced theory and methods, mainly for policy analysis and economic management within governments, but also for employment in the private sector and universities.
- To provide the foundations for a smaller number of economists who can subsequently undertake more advanced study at the doctoral level, mainly for employment in universities and research institutions.

In this framework, the program is intended to strengthen the teaching and research capacity of university departments of economics, and also to reduce the need for African countries to purchase training abroad when services of comparable quality can potentially be provided at home at more reasonable cost.

There are two categories of participants: first, the departments of economics which do not currently offer masters programs fulfilling the requirements of the regional collaborative program (Category A participants); and second, economics departments which do have such programs (Category B participants). Classification of a department, based on a set of transparent criteria agreed upon by all departments, is not necessarily permanent. A department can move from Category A to B, or vice versa.

The program, which runs for 18–24 months, has three components: core courses, elective courses, and a thesis or research paper. The core courses are compulsory courses undertaken during the first year. While minor differences exist from one university to another in terms of additional compulsory requirements, the basic CMAP requirements are: advanced macroeconomics, advanced microeconomics, and quantitative methods (i.e., mathematics, statistics, and econometrics). It is possible that a fourth compulsory course on policy analysis and economic management may be added to the basket of core requirements.

All university departments participating in the collaborative program are therefore expected to teach high-quality, advanced core courses in the above subjects, particularly those in the Category B departments. This does not preclude a department teaching one or more additional compulsory courses, as long as the three courses in macroeconomics, microeconomics, and quantitative methods are properly taught.

Subsequent to successful completion of the core courses, elective courses are offered at a common, Joint Facility for Electives (JFE) location, and are taught by outstanding scholars recruited from the region and overseas. A major benefit is the synergy created by bringing together students and teachers from several universities for a concentrated period of intensive instruction (i.e., three months).

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[52] Apparently AERC struggles somewhat with the issue of the degree to which it should pursue an advocacy role. However, they recognize not doing so could slow down the pace at which desirable changes could take place.

Students select two options from the menu of 12 courses: advanced econometrics, agricultural econometrics, corporate finance and investment, environmental economics, health economics, industrial economics, international trade and finance, labor economics, managerial economics, monetary theory and practice, policy analysis, and economic management and public finance.

While not a compulsory requirement, a course on research methods is offered and typically taken by all students.

The electives are taught at the JFE over a period of three months from July to October each year. Examinations are undertaken during the twelfth week and externally examined at the end of each JFE session.

Students then commence work on their thesis or research paper upon satisfactory completion of their core and elective courses. The duration of the preparation and presentation of the research work or thesis is typically 6 to 12 months.

A representative body of the participating Departments of Economics, known as the Academic Board, is responsible for the management of all academic aspects of the CMAP.[53] All departments in Category A and B are fully represented in the Academic Board and are eligible to serve on its committees. Category A departments may nominate candidates for scholarships for enrolment in the masters program of Category B departments. Category B departments are eligible for grants to strengthen their masters' programs. The grants are to provide modest support for start-up costs and operating costs for the core courses and thesis research.

The AERC Secretariat acts as executing agency and is responsible for all administrative and financial matters relating to the program, including the awarding of grants to participating departments of economics.

A separate administrative set-up operates for the Francophone countries.

### *D2.4 Collaborative Ph.D. Program*

The objective of the collaborative Ph.D. program is to strengthen teaching and research capacity in SSA countries, increase the pool of potential researchers and policy analysts, and reduce the need for African countries to purchase training abroad when services of comparable quality can be provided at home at reasonable cost.

The program will shortly be launched first in three universities to be selected on the basis of an agreed set of criteria. In choosing the three universities, cognisance of regional interests will be taken so that the three major Anglophone regional blocks — Western, Eastern, and Southern Africa — are adequately covered. While resources will be concentrated in the degree awarding universities, all universities participating in the collaborative framework will benefit from one-off capacity building grants and scholarships for their staff development candidates, curriculum development, and participation in program teaching.

In consideration of regional interests, the interest of the French-speaking countries will be addressed in a number of ways:

- Initially, one of the three universities selected will be targeted to admit French-speaking students and will, therefore, be provided with the necessary infrastructure support for this purpose.
- Secondly, the program will include an English language module in the core curriculum, targeting students from the Francophone region and mounted in an Anglophone institution to enhance their proficiency in the language.
- Further, in phasing in the fourth university, special efforts will be made to identify a suitable French-speaking university as a host for the program.

The innovative nature of the program arises from the introduction of a model that combines course work and thesis thereby complementing and enhancing the quality of existing doctoral programs, rather than providing a substitute. The program is designed as a four-year course and is expected to have a life of 15 years to achieve a reasonable level of output.

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[53] AERC recognize that start-up costs can be high but these are justified on the basis of the need to convince everyone of the merits of the approach and the importance of transferring "ownership" to the Board.

In the proposed model, students will enter the four-year Ph.D. Program through a competitive process following successful completion of the AERC CMAP or other master's degree programs that are course-work based and subject to external review. The structure of the collaborative Ph.D. program, its course work, and other requirements are detailed in an AERC report (AERC 2001).

**D3 EASTERN AND CENTRAL AFRICA PROGRAM FOR AGRICULTURAL POLICY ANALYSIS (ECAPAPA)**

ECAPAPA was created in 1997 by the Directors of Agricultural Research in Eastern and Central Africa region and has its headquarters in Entebbe with a geographical mandate covering 10 countries in East and Central Sub-Saharan Africa.[54] It comes under the umbrella of Association for Strengthening Agricultural Research in Eastern and Central Africa (ASARECA).

A Coordinating Unit is made up of a Regional Coordinator and assisted by a program assistant, secretary, and driver. The Coordinating Unit's primary responsibility is to coordinate, support, and facilitate program activities. It identifies needs, prepares and solicits proposals, mobilizes resources, distributes funds for project activities, and acts as a conduit for information exchange among stakeholders. The program has a steering committee of 12 members appointed by the committee of directors of ASARECA from among the program's stakeholders.

The overall program goal of ECAPAPA is to "promote regional economic growth through application of growth-enhancing agricultural policies and, in the process, to help build a sustainable capacity in the national agricultural research systems (NARS) to utilize and contribute to agricultural policy research and analysis" (ECAPAPA 1998). The intention is to help the socioeconomic research within NARS to be more responsive to existing agricultural policies and to be more proactive in policy research and analysis directed towards increasing the effectiveness and efficiency of technology development and transfer systems. The desire of ECAPAPA is therefore to create an inclusive agricultural policy network in East and Central Africa, which can serve as a basis for improved agricultural policy analysis and formulation. It has three main tasks to undertake in order to fulfil its mission. These are:

- *Capacity Building*. These activities endeavor to increase the ability of institutions related to agriculture (e.g., NARS) to influence and to apply agricultural policies. There are several procedures for capacity building, ranging from stand alone training on specific topics of relevance to policy, to training sandwiched with policy analysis research. There are also several levels of exposure, ranging from creation of awareness and understanding to capacity to do rigorous policy analysis. One desire is to strengthen NARS capacity in:
  - **T** Strategic planning and priority setting in a manner compatible with existing agricultural policies.
  - **T** Identifying, managing, utilizing, and mobilizing agricultural research resources
- *Agricultural Policy Analysis*. The program implements its policy research and analysis function by supporting and coordinating research in selected thematic areas. Policy analysis is undertaken through a team approach, drawing together the macro analytical perspective of the policy analysts and the micro analytical perspective of individual stakeholder groups. Specifically this involves helping to improve the regional capacity for agricultural policy research, analysis, and formulation by:
  - **T** Facilitating collaborative activities of agricultural researchers with policy experts within and outside the NARS.
  - **T** Helping policymakers formulate sound agricultural policies based on sound research and analysis.
  - **T** Which, in turn, results in better information about the potential impact of different policy options on production, productivity, and sustainability.
- *Agricultural Policy Information Exchange.* The program seeks to use several ways of providing information including both electronic and more traditional media (i.e., workshops, policy forums, meetings, newsletters). This is designed to bring together various organizations, programs, projects, and networks to address policy areas of mutual concern. Specifically this involves networking and coordinating from a regional perspective, selected policy research and analysis activities

ECAPAPA has a broad range of stakeholders, including the national agricultural research and extensions systems (NARS); universities both within and outside the region that address policy issues relevant to the region; international agricultural research centers — public, quasi-public, and independent policy analysis units; NGOs and CBOs; farmers' organizations; private-sector groups; and donors interested in the program.

[54] These countries are: Burundi, Democratic Republic of the Congo, Eritrea, Ethiopia, Kenya, Madagascar, Rwanda, Sudan, Tanzania, and Uganda.

The program is supported by a number of donors, including USAID, the International Development Research Center (IDRC) of Canada, the Technical Center for Agricultural and Rural Cooperation of ACP-EU, and the Swiss Development Cooperation.

## D4 THE FOOD, AGRICULTURE, AND NATURAL RESOURCES POLICY ANALYSIS NETWORK FOR SOUTHERN AFRICA (FANRPAN)

The idea for a FANRPAN was conceived at the first meeting of Ministers of Agriculture of Eastern and Southern Africa in Harare in April 1994. The Ministers were very concerned about the lack of political commitment concerning the agricultural sector resulting in low levels of public-sector investment in food, agriculture, and natural resources. They concluded that comprehensive policies and strategies were required to get agriculture moving again — hence, the idea of the network. Later in the same year, June 1994, the policymakers and Heads of State participating in the Global Coalition for Africa (GCA) Advisory Committee endorsed the idea. Later, economists in the region agreed it was more practical to establish separate networks for Eastern[55] and Southern Africa, although it was recognized some sharing of resource people and experts would be desirable.

In July 1994, a meeting was convened by the Food Security Technical and Advisory Unit (FSTAU), SACCAR, and the Agricultural Economics and Extension Department, University of Zimbabwe, to discuss plans for such a network as a follow-on of the University of Zimbabwe/Michigan State University (UZ/MSU) Food Security in Southern Africa Research Network that operated from 1985 to 1992. This was later approved in principle by SADC.

Consequently in July 1997, participants at a stakeholders meeting organized by the Agricultural Economics and Extension Department, University of Zimbabwe, agreed to the formation of the network and the department itself was elected as the interim secretariat. The department was also asked to develop a proposal and budget for interim activities. The idea is for the network to build on the long-term investment in, and expertise already existing in universities, NARS, and other policy units.

The agreed overall goal of the network is "to facilitate and promote the analysis, synthesis, formation, adoption, implementation, monitoring, and evaluation of appropriate and effective food, agriculture, and natural resources policies that will reduce poverty, increase food security, lead to economic growth, and improve the standard of living in the Southern African region" (Anon, No Date). The stated objectives of the network are to (Anon, No Date):

- Engage and improve policy analysis, research, and synthesis on food, agriculture, and natural resource priority themes.
- Improve and strengthen policy formulation, policy reform, and monitoring policy impact.
- Develop human and institutional capacity for coordinated policy analysis and research among all stakeholders.
- Assist the development and implementation of mechanisms to promote advocacy, coalition building, information exchange, and effective utilization of research analysis results and information.

The results the network expects to achieve include (Anon, No Date):

- Key areas for food, agricultural, and natural resource policy research and gaps in policy knowledge identified by stakeholders, data on key policy issues collected, data analyzed, and information generated and provided to government decisionmakers.
- Food and natural resource policy debates in the SADC region framed, choices made by policymakers influenced by solid analyses, and short- and long-term impacts of policies analyzed and monitored.
- Improved human and institutional capacity for coordinated policy analysis within stakeholder organizations.
- Broader public and private coalitions at national and regional levels to promote advocacy and effective utilization of research results by stakeholders and government decisionmakers.

The five main areas/issues the network plans to focus its policy research on are those relating to: poverty, trade including marketing, natural resource management, economic reform, and institutional reforms.

In order to get the network going, the interim secretariat organized a Policy Dialogue Forum involving key stakeholders participating together to focus on particularly topical subject areas. Stakeholders involved in the Policy Dialogue Forum included

[55] This was to evolve into ECAPAPA, discussed in Appendix D3.

farmer organizations, private-sector agribusiness associations, relevant government ministries and agencies, financial institutions, regional organizations, donor groups, and civic societies. The two subject areas initially viewed as particularly important were intraregional trade and land tenure and reform, with the priority during the first year given to the former.

The FANPRAN activities are currently in eight SADC countries namely Botswana, Malawi, Mozambique, Namibia, Tanzania, South Africa, Zambia, and Zimbabwe. The FANPRAN network operates its program of action through in-country nodes. The country nodes implement in-country stakeholders consultation meetings to define agenda, policy research and analysis, advocacy, and training. Specifically, the functions of the nodes are to:

- Coordinate the regional network agenda at the national level through organizing national stakeholder dialogue fora.
- Manage action-oriented research activities in the different countries.
- Coordinate advocacy activities.
- Manage training, information exchange, and communication at the national level.

Nodes have been established in all eight of the countries and each node has a coordinator. The network also publishes a newsletter.

### D5 SOIL FERTILITY NETWORK FOR MAIZE-BASED CROPPING SYSTEMS IN MALAWI AND ZIMBABWE (SOIL FERT NET)

The Soil Fert Net began in 1994, out of a collective realization by the RF Agricultural Sciences Program and its grantees that there was need for better coordination of soil fertility related work in Malawi and Zimbabwe.

Individuals involved in the network are agricultural researchers and extensionists from public research and extension institutions and universities in Malawi and Zimbabwe. Some links exist with similar institutions in Zambia, Kenya, and Mozambique. Also, participating are several international institutions — i.e., including staff from the International Center for Research in the Semi-Arid Tropics (ICRISAT) and the International Maize and Wheat Improvement Center (CIMMYT), NGOs, and farmer organizations in Malawi and Zimbabwe. Participation is voluntary and based on the concept of mutual benefit. The RF has encouraged their grantees from public research institutions to be involved. Interested parties that receive support from other donors are welcomed.

The network tries to help smallholder farmers in Malawi and Zimbabwe produce higher, and more sustainable and profitable yields from their dominant maize-based cropping systems through:

- The development and use of improved soil fertility technology.
- Better management of organic and inorganic fertilizer inputs.

The basic approach involves the integration of modest amounts of inorganic fertilizer with a wide range of available organic sources, developed as a result of partnerships among research, farmers, extension, and input providers.

Members of the Soil Fert Net have developed a range of organic and inorganic soil fertility technologies that offer the smallholder farmer the "best bet" means for improving productivity and sustainability, and addressing household needs and income. These result from extensive research and on-farm testing with farmers. Many are being widely promoted by the Soil Fert Net and its collaborating partners.

In 1999, a new initiative within the Soil Fert Net was developed in the form of The Economics and Policy Working Group (EPWG). It is designed to fill what was perceived to be an important gap. It provides:

- A framework for closer interaction between soil fertility experts, economists, extensionists, and policymakers on strategies for solving the soil fertility problems of farmers in a manner that involves increased participation by farmers and all other stakeholders.
- Objective economic evaluation of the existing "best bet" technologies for soil fertility management.
- Priority setting and targeting of potential "best bets" technologies for smallholder farmers.
- Policy research and advocacy to create an enabling policy environment to promote farmers' use of improved soil fertility management technologies.
- Strategic and relevant partnerships for scaling-up the work of the Soil Fert Net.

The EPWG operates through two convenors (i.e., for Malawi and Zimbabwe), which help to ensure the interaction between disciplines. Financial contributors to the network include Rockefeller, IFAD, and the EU.

**D6 THE INITIATIVE FOR DEVELOPMENT AND EQUITY IN AFRICAN AGRICULTURE (IDEAA)**

IDEAA is a Southern African regional initiative with its office at the University of Zimbabwe in the Department of Agricultural Economics and Extension. It began in 1997 and has programs in Botswana, Lesotho, Swaziland, Malawi, Zimbabwe, and South Africa (i.e., Kwa Zulu, Natal, Eastern Cape, and Northern Provinces).

IDEAA is a program that seeks innovative ways of improving the provision of services to smallholder farmers by public, private and civic institutions. It believes that efficient and demand-driven services will result in improved productivity of the smallholder agricultural sector and increased household incomes.

IDEAA's main objective is to transform institutions and related policies that hinder effective provision of services to the smallholder farmers through:

- Ensuring greater access to support services and resources to facilitate increased agricultural productivity.
- Adding value to commodities thus improving lives of smallholder farmers.
- Evaluating options through selecting appropriate change agents and mentors in each program.
- Strengthening the capacity of farmers' institutions to demand and receive appropriate services.
- Modeling, diagnosing, and promoting effective institutional and technological innovations for smallholder farmers in the region.
- Promoting regional interaction, learning, and information exchange.

The Regional IDEAA Council is the highest policymaking body. Within each participating country program, there is a multidisciplinary team comprising of five fellows and four senior advisers that constitute the Country Implementation Council. The senior advisors consist of senior managers in service provision institutions that can influence and bring about policy and organizational changes in their countries. IDEAA fellows are agriculturalists who can influence the development of smallholder agriculture in their countries. Fellows are drawn from institutions that service smallholder agriculture. This team works on a community project by applying participatory approaches to diagnose, identify, and find solutions to agricultural problems faced by smallholder farmers.

The Rockefellor and W. K. Kellogg Foundations fund IDEAA. However, country programs are also encouraged to identify supplementary funding for their project activities.

# APPENDIX E — INFORMATION ON "EMPLOYER" INSTITUTIONS

## E1 INTRODUCTION

In order to get some idea of the potential demand for agricultural economists and the type of training required by different potential types of employers, a number of public-sector and semi-private institutions were visited. This appendix describes in very summary form the activities of those we visited. We visited five NARSs and seven Policy Research Institutes and also provide information on another four of the latter based on discussions with third parties and what was written in an earlier report (Norman 1998).

## E2 NARS

### *E2.1 Introduction*

Unfortunately, time limitations precluded a detailed assessment of the microeconomic capacity within the NARSs or for that matter in the agricultural ministries in general. However, visits to NARSs in the region in recent years in connection with other missions not connected with this one has convinced us that, in general, the situation is not significantly different from the conclusions of a 1993 reconnaissance survey undertaken by Heisey and Rohrbach (1993) in the NARSs of the SADC. It would be wrong to assume that their specific findings for the SADC countries apply to all the countries included in this report eight years later but their general findings apply to at least some extent today. For example:

- The numbers of economists and, for that matter, other social scientists in the NARS continue to be very limited, meaning that the percentage they constitute of NARS total scientists remains very low (e.g., an average of 3.9 percent in the Heisey and Rohrbach report). There is no evidence to indicate that this situation has changed very much given the technical science orientation of the NARS and alternative employment opportunities for economists.
- The qualification levels of economists within the NARSs are very low. For example, in the Heisey and Rohrbach report, there were no Ph.D.s while 36 percent had M.Sc. degrees and the remaining only had B.Sc. degrees. In their report, 21 of the 36 economists were located in Tanzania. However, we now know of at least three and possibly four Ph.D.s in agricultural economics associated with the Department of Research and Development (i.e., the Tanzanian NARS)[56] and, at least one more, is currently studying for a Ph.D.
- The number of years of experience of economists within the NARS is often very limited (e.g., in the Heisey and Rohrbach report, the average length of tenure was five years), and the estimated turnover rate was often quite high. Once again, there is no reason to suspect this situation has changed very much in the last few years given the increasing opportunity costs of agricultural economists as a result of greater experience and attaining higher academic qualifications.

Not surprisingly, given the above likely characteristics, agricultural economists rarely appear to play influential roles within the NARSs. Their influence tends to be somewhat greater, where they exist, in planning/policy units within agricultural ministries. Most of the agricultural economists and other social scientists in the NARSs in the region can be traced back to the introduction of the farming systems research approach, which was so popular with many donors in the early 1980s. Consequently, it is not surprising that Heisey and Rohrbach (1993) concluded that the economists primarily focused on short-term technology generation. Thus, it is likely still to be the case that agricultural economists are primarily involved in diagnosing small farmers' production constraints, defining recommendation domains, and helping to design and often implement/monitor trial programs to address these constraints. Assessing economic feasibility of technological components via partial or enterprise budgeting is also likely to be commonly practiced. However, Heisey and Rohrbach also concluded that the involvement of economists in other types of activities (e.g., fertilizer response analysis, marketing studies, adoption and impact studies, livestock economics, and nutrition/household food security and research priority setting for the NARSs) was much more limited. There is little evidence that this has changed substantially in the interim in spite of the general phasing out of specialized farming systems teams (e.g., Kenya and Tanzania) and their replacement with the notion that all scientists, particularly in the regionally focused research stations, are to understand the basics of the farming systems or client-orientated approach, and have opportunities to interact directly with farmers. This inevitably means that the institutional home of agricultural economists and other social scientists is somewhat in a state a flux, although in general the trend is to set up socioeconomic "units"

[56] Although two still have not returned to Tanzania, one is a postgraduate scholar with IFPRI in Kampala in Uganda.

which are expected to service the technical scientists, in addition to implementing certain other functions. For example, in Tanzania, in Phase II of the TARP, the regional (zonal) based socioeconomic units are expected to perform the following roles:

- Through being members of interdisciplinary research teams, including technical scientists, in technology generation and dissemination, in helping to:
  - **T** Implement diagnostic surveys through ensuring the use of relevant sampling frames and making sure social and economic variables are incorporated.
  - **T** Plan and design research including social and economic feasibility of research themes, selection of appropriate treatments, and deciding on the appropriate criteria for selecting sites and farmers.
  - **T** Implement on-farm research concentrating on incorporation of specific social and economic variables, and ensure appropriate farmer and site selection.
  - **T** Monitor the trials and farms and the collection of relevant social and economic data for appropriate analysis of the results.
  - **T** Evaluate the technologies including farmer assessment and economic analysis.
  - **T** Develop and implement methodologies to incorporate farmer participation.
  - **T** Monitor the adoption of technological recommendations and provide feedback to research planners and policymakers.
- Establish and update baseline data in a database to be used for planning, priority setting, and policy formation.
- Analyze institutional and policy-induced constraints on development at the farm level.
- Collaborate with national and international organizations dealing with similar socioeconomic issues relevant to Tanzania.
- Conduct studies to understand and assess market opportunities (e.g., understand trader and consumer preferences, and determine potential market demand) and propose mechanisms for linking producers and potential consumers.

This somewhat ambitious list of functions of the economists incorporates most of those indicated as not always being implemented in 1993 (Heisey and Rohrbach 1993). However, whether these are all achievable without substantial numbers of, and upgrading of, agricultural economists remains to be seen. Tanzania and possibly Kenya might have such capacity but it is doubtful whether such an ambitious set of functions can be implemented in smaller NARS with very few agricultural economists (e.g., Malawi,[57] Zimbabwe, and possibly Uganda).

An additional concern is that within the NARSs those with most developed skills in the application of farming systems/farmer participatory approaches are often the agricultural economists and, where they exist, other social scientists. With the disbanding of the farming systems teams and the trend to all scientists having an on-farm orientation there is a risk that their knowledge and skills in this area are not likely to be well developed as a result of short-term in-service courses, possibly encouraging a reversion to a "farming systems in the small" philosophy (Norman and Matlon 2000) and even perhaps to the multilocational trial approach so popular before the advent of the farming systems approach. This implies that the agricultural economists are likely to have to play a critically important role in preventing such retrogression, further inhibiting them from undertaking other functions usually associated with agricultural economists. This in turn raises another concern that needs to be addressed. Most agricultural economists in the NARS with the requisite skills in the farming systems/farmer participatory approaches have developed them through experience in the field, by working with individuals experienced in these approaches, and through short in-service training courses, especially those offered by CIMMYT. Thus, does not bode well for ensuring the sustainability of such knowledge within the NARSs. Hence, it would seem important that the methodologies relating to such approaches need to receive more explicit emphasis in the curricula of the B.Sc. and M.Sc. degrees of the universities in the region (see Section 6.6). There would be merit, in the light of the above-discussed trends in the NARS, and the importance attached to such approaches in the agricultural-related NGOs that are becoming so common in the region, for all agricultural students to receive instruction on such techniques (i.e., embracing collecting data, implementing trials, and analyzing the results). However, it is particularly important for agricultural economists to receive such training although, apart from Alemaya, Bunda, and Sokoine at the undergraduate level, this seems to be singularly lacking in the curricula of agricultural economic-related degrees.

[57] For example, in a visit to the Department of Agricultural Research and Technical Services (DARTS) in 1998 (Norman 1998), there was only one agricultural economist in place with another due to return sometime in the future. This compared with about seven some time earlier before the dissolution of the multidisciplinary adaptive research teams associated with the Agricultural Development Districts (ADDs)

In terms of the more policy-oriented activities increasingly expected of agricultural economists within the NARS, two networks currently operating in the region are intended to help nurture expertise in such types of activities. These are described elsewhere in this report, namely ECAPAPA (see Appendix D4) and FANRPAN (see Appendix D5).

### *E2.2 Ethiopia: Ethiopian Agricultural Research Organization (EARO)*

EARO was created four years ago from the Institute for Agricultural Research (IAR) and the absorption of research institutes relating to veterinary and forestry. Currently, it is the beneficiary of a World Bank/IFAD-funded ARTP. When EARO was being formulated, it was felt that a socioeconomic department was not necessary. However, when he took over, the new Director General helped initiate a major participatory priority setting exercise to draw up a long-term research strategy.

The result was 51 programs and 168 projects in six major scientific areas: crop science, animal science, soil and water management, dry land agriculture, socioeconomics, and extension and development designed to address the needs of the 18 agroecological zones in the country. To date, four of those zones have been characterized in detail.

In terms of socioeconomics, three research programs have been identified in the areas of production economics and farming systems research, natural resource conservation and management, and agricultural policy and marketing research. These have been divided into 11 projects and 16 sub-projects. We have taken the liberty of reproducing information about the proposed socioeconomic research program of EARO in Table E2 because it illustrates very well the diverse types of research that social scientists and specifically agricultural economists are expected to undertake within NARSs.

The total number of scientists in EARO amount to 800 scientists and they (i.e., the Director General, the Head of the Socioeconomics Department, and others) have estimated that currently there are only 21 socioeconomists (i.e., three with Ph.D.s and nine each with M.Sc. and B.Sc. degrees) compared with 45 if they were fully staffed. Thus, the priority-setting exercise has resulted in demonstrating critically important roles for socioeconomists in general and agricultural economists in particular. Unfortunately, at the moment, EARO is critically deficient in terms of natural resource economists, policy economists, and somewhat short in terms of the marketing area. It has no social anthropologists or econometricians.

Strong linkages exist between EARO and Alemaya via collaborative research under the ARPT, which is also designed to improve human capacity and infrastructure in both institutions. In terms of detailed research proposals and reporting of results, there are mechanisms in place at the national, research center, and division level to elicit comments and approval, including interested groups such as extension and farmer groups.

Retaining staff is recognized to be a problem and in response to the question as to what can be done to retain the services of scientists, including agricultural economists, the Director General indicated the following: program leaders get a salary incentive, housing and educational allowances can be given, the retirement age can be raised, potential for accelerated promotion based on performance can be instituted, and promising staff training after three-year service can be implemented. Some, if not all, of these are in the process of being implemented.

### *E2.3 Kenya: Kenya Agricultural Research Institute (KARI)*

Socioeconomics started as a program in KARI in 1992. The department is very understaffed. Because of unattractive remuneration, the department is unable to attract and retain staff, especially at the more senior levels.

There is also a problem with the graduates joining the socioeconomics program at KARI. The experience of graduates in KARI has been that the training they received at the university was not well-suited for the field, although generally they were well prepared in production economics, marketing, commodity analysis, etc. Thus, university courses sometime seem to be out of touch with realities on ground. Because of being ill-equipped, the graduates have had to reorient themselves through short-term training in specialized areas (e.g., priority setting, monitoring and evaluation, adoption and impact assessment, participatory/farming system approaches, market failure, etc.). KARI has been able to get funding for such short courses from the Dutch government, DFID, USAID, and the World Bank.

Staff at KARI implement joint research projects with a number of local and international organizations in the country — e.g., International Livestock Research Institute (ILRI), CIMMYT — and multinational companies. These organizations usually insist that KARI staff be based at their premises when they are engaged in collaborative research. Often, as a result, KARI staff obtain a leave of absence for two years and sometimes request an extension. This arrangement tends to encourage a "brain drain" in the sense that at the end of the project the staff member is quite often absorbed in full-time employment in the collaborating organization/institution.[58]

Linkages are also encouraged via a competitive Agricultural Research Fund (ARF) supported by the World Bank and other international agencies. A steering group oversees the administration of this fund with a staff member at KARI being responsible for its day-to-day administration.

### *E2.4 Mozambique: National Institute of Agronomic Research (INIA)*

The national agricultural research system in Mozambique consists of institutions that operate under the mandate of various public, higher-learning, and private organizations. INIA, the National Veterinary Research Institute (INIVE), and the Animal Production Institute (IPA) are "autonomous" research institutions located in the Ministry of Agriculture and Rural Development (MADER). The Center for Forestry Experimentation (CEF) comes under the Directorate for Forestry and Wildlife within MADER. The Eduardo Mondlane University and the Catholic University of Mozambique/Cuamba Campus are also involved to some extent in agricultural research. Significant amounts of adaptive research and on-farm experimentation are implemented by the provincial agricultural extension services of MADER, NGOs, and large agro-industry enterprises.

INIA is headquartered in Maputo and has a number of substations in different ecological zones in the country. A research prioritization exercise has recently been undertaken using the International Service for National Agricultural Research (ISNAR) scoring approach. The strategic plan for agricultural research was initially drawn up in 1992, revised in 1996, and is now once again being revised. There are links with a number of the USAID Collaborative Research Support Programs (CRSPs), for example, bean/cowpea, root and tuber, sorghum, and millet (INTSORMIL), etc. Food crops, cashew nuts, and cotton dominate the research agenda. Efforts are being made to introduce the farming systems approach in a system still organized along commodity lines. Very little fertilizer is being used on farmers' farms.

Currently, there are only two Ph.D.s and about five M.Sc.s on the staff with the rest only having bachelor-level degrees. Agricultural economics representation in INIA is virtually nonexistent but its potential importance is recognized. In fact, the current Director of INIA will shortly be departing for Purdue University to do a Ph.D. in Agricultural Economics under INTSORMIL sponsorship, having earlier received a M.Sc. degree in Agronomy from Australia.

A Technical Review Committee reviews the research program and planning meetings include extension representation, but there are problems of dissemination of recommendations. The Research Extension Liaison Research Officers (RELOs) have been ineffective in creating effective linkages. A recent proposal for the institutional reform of the agricultural research system in Mozambique concluded that the system as a whole suffered from weak management and leadership, inadequate capacity and resources, and did not adequately address producer needs (Republic of Mozambique 2000). As a result, they made recommendations relating to improving:

- Management and leadership through creating autonomous apex bodies at national and zonal levels and a Management Board with legal autonomy.
- Client orientation of research through decentralization and stakeholder participation.
- Research capacity through human resource development and a performance-based incentive system.
- Resource availability for infrastructural development and an improved research funding mechanism.

The above strategy it is proposed should be implemented in three phases over a 10-year period. Obviously, there are major implications in terms of administrative and organizational changes, and resources required.

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[58] An alternative approach suggested by a KARI staff member, which might discourage such leakage, is for KARI to insist that in such collaborative ventures the KARI officer operates out of a KARI office rather than physically moving to an office of the collaborating institution.

### *E2.5 Rwanda: Institut des Sciences Agronomique du Rwanda (ISAR)*

ISAR was established in 1962 replacing what was then called the Institut National pour l'Etude Agronomique au Congo (INEAC), which had the mandate for agricultural research in Congo, Burundi, and Rwanda during the colonial period. The ISAR mandate and roles include:

- Promotion and development of scientific techniques in agriculture.
- Development and training of researchers in specialized domains of agriculture, and publication and dissemination of research results in collaboration with extension staff.
- Proper and effective supervision and management of research centers and experimental stations.
- Participation in drafting and implementing the national agricultural policy and strategies.

ISAR, a semi autonomous institute under the Ministry of Agriculture, is governed through an eight-member Board, chaired by the Secretary General of the Ministry of Livestock and Forestry Education.

ISAR currently has 11 priority programs, which were arrived at as a result of a participatory research priority-setting exercise. The total number of staff at ISAR is 103. Of these, there are three staff with Ph.D.s, eight with masters' degrees, and 33 with Licence or B.Sc. equivalent degrees. The socioeconomics program has only two technical staff (i.e., one at the M.Sc. level and one with the B.Sc. equivalent).

ISAR is thus faced with major constraints in terms of human resources. There are financial constraints but increased funding will be of limited value without increased human capacity both in numbers and quality. Human resources are not only scarce but the skills that are currently available are probably not commensurate with stakeholders' expectations. Moreover, at present, the physical infrastructure is as much of a liability as an asset because of the amount of management time and resources required for its maintenance.

Despite the fragile state of the institute, ISAR is expected by the government to make a significant contribution towards the growth of agricultural sector in Rwanda especially in issues relating to: food security, land fragmentation, population pressure, export promotion, import substitution, agribusiness, and promotion of regionalization and specialization.

### *E2.6 Uganda: National Agricultural Research Organization (NARO)*

NARO's mission is to contribute to the improvement of the welfare of the people of Uganda and the conservation of the natural resource base by increasing the productivity and utilization of crops, livestock, fisheries, and forestry resources through the enhancement of scientific knowledge, and the generation, adaptation, and transfer of improved technologies, methods, and policy advice. To achieve this mission, NARO has the following major strategies:

- Improving the efficiency and effectiveness of technology development and transfer.
- Contributing to the commercialization of the agricultural sector.
- Mainstreaming gender and integrating environmental concerns.
- Strengthening capacity.
- Broadening the funding base and promoting participation of the private sector.

The research thematic areas include: socioeconomics; crops; livestock resources; fisheries; forestry; soil and water; postharvest handling; and product development, value adding, and quality.

Socioeconomics feature prominently in a range of activities associated with priority setting and planning and implementation/analysis of research activities. Unfortunately, the tasks expected in the socioeconomics program far exceed the current and prospective socioeconomic capacities within NARO. This was confirmed by our visit to NARO. We received the impression that the microeconomic capacity within NARO was very limited. It appeared that agricultural economics was considered to be a service discipline designed to serve the interests of the technical scientists. The basic problem appears to relate to that of the universities, namely the high opportunity costs of the more talented/well-qualified individuals who seek "greener" pastures. One initiative that the World Bank wanted was to see support for a Micro-Policy Unit within NARO but this appears to have been thwarted by a DANIDA

initiative involving individuals/groups competing for a research fund to be administered outside the present administrative structure, thus raising questions about its sustainability.

## E3 POLICY RESEARCH INSTITUTES

### *E3.1 Introduction*

Policy Research Institutes have become particularly popular in the region in recent years as a result of the SAPs and the resulting spin-offs in the form of public-sector downsizing, increased significance of the private sector, market reform, and liberalization, etc. Unquestionably, they have been very instrumental in helping to "domesticize" or "indigenize" the policy debate. These institutes vary in how closely they are associated with government decisionmaking with respect to policies. There is obviously a trade-off between:

- On the one hand, being at the "beck and call" of government but as a result, potentially having an opportunity to play a significant role in government policymaking decisions; and
- Having a looser connection which increases the potential for being independent but simultaneously decreases the potential of having a major influence on governmental decisionmaking.

In Ethiopia, for example, the EDRI is currently closely associated with government as is KIPPRA in Kenya, while IPAR also in Kenya and institutes visited in the other countries appear generally to be somewhat more independent.[59] However, most of the institutes receive some funding from their governments to support their activities and have governmental representation on their governing boards. Such institutes also usually engage in demand-driven research and training activities for other agencies, and actively lobby for funds from donors.

One interesting feature of many of the institutes is the representation of agricultural economists.[60] Although in many institutes only one agricultural economist is employed to work on agricultural sector-related issues, others are often found working on other issues such as health, infrastructure, trade, etc. Does this say something about the expertise and skills that agricultural economists have in working at the micro and meso levels?

In the following sections, we summarize the activities of 11 policy-related institutes. We visited seven of them during the field trips and obtained information on the others through discussions with knowledgeable individuals and/or from information presented in the 1998 report (Norman 1998).

### *E3.2 Ethiopia: Ethiopian Development Research Institute (EDRI)*

The EDRI is relatively new and is modeled on the Korean Development Institute. It is located in the Prime Minister's Office and is headed by a Director who also doubles as an advisor to the Prime Minister. EDRI is supposed to be an autonomous research institute but its present location may find itself being compromised. Currently, the EDRI staff are on the government payroll. However, there are plans to shift the institute to a different location and it is expected that ACBF will play a bigger role in financing the activities and operations of the institute.

EDRI currently has a staff of five working mainly in the areas of agricultural and rural development, and macroeconomics and finance.

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[59] An exception is of course the Policy Analysis Unit (PAU) in Mozambique, which is not an independent institute but is located in the Ministry of Agriculture and Rural Development.

[60] For example, in the EPRC at Makerere, three of the four researchers are agricultural economists.

### *E3.3 Kenya*

#### *E3.3.1 Kenya Institute for Public Policy Research and Analysis (KIPPRA)*

KIPPRA was formally established in May 1997. It was initially located at the Treasury Building (Ministry of Finance) but then moved to its new premise outside the ministry. However, the institute still retains the Treasury Building offices, which house the Modeling Unit.

KIPPRA's primary objective is to conduct objective research and analysis of public policy issues with the goal of providing advice to policymakers. A central factor that motivated the establishment of KIPPRA was the realization that government agencies face various constraints that limit their ability to undertake analytical work necessary for the formulation and implementation of economic policy. As an independent research institution, KIPPRA is expected to take a long-term perspective with regard to Kenya's economic development.

One of the central activities of KIPPRA is capacity building, primarily directed to the public sector. The strategy taken by KIPPRA is to involve government officials in specific research activities and to provide specific training with the aim of enhancing the analytical capacity of policymakers in the area of economic policy.

The management of the institute is vested in an 11-member Board consisting of government officials, representatives of the private sector, universities, and research institutes. The Board is chaired by the Vice Chancellor of the University of Nairobi. KIPPRA has a total of 10 employees: the Executive Director, principal analyst, senior analyst, analyst, finance and administration manager, librarian, secretary, receptionist, driver, and messenger/office assistant.

Publications of KIPPRA include technical papers, policy papers, and policy briefs. It has also produced a number of confidential reports for government. Some of the reports produced by KIPPRA include:

- Delivery of services to smallholder coffee farmers and impacts on production under liberalization.
- A review of Kenya's current industrialization policy framework.
- Macroeconomic modeling -- that helps analyze development strategies, quantify policy options, study alternative policy packages, and forecast future paths of key policy variables.
- The banking sector and interest rates spread in Kenya.
- The exchange rate and interest rate differential in Kenya.
- Public expenditure management.

Special research projects include: informal sector property rights, the economic recovery program, the study of effects of zero-rated Common Market for Eastern and Southern Africa (COMESA) tariffs in Kenya, and the determination of the optimal tax for beer in Kenya.

#### *E3.3.2 Institute of Policy Analysis and Research (IPAR)*

IPAR was founded in 1994 as an institute devoted to research and analysis of issues that are of public interest to Kenya. At the design level, it was envisaged that, through interaction with policymakers, donors, and interest groups, public policy issues would receive wide coverage and discussion before changes are made in policy or before policies are implemented. The motivation behind this was the realization that it can be extremely costly to implement wrong policies or to change policies before the full impact and consequences of such changes are addressed. Ideally, no policy should be implemented unless a full potential impact analysis has been conducted.

IPAR has a seven-member Board of Directors consisting of retired government servants and officials who served in various international institutions. A retired public servant and former Permanent Secretary of the Ministry of Finance chairs the Board.

The main mission of IPAR "is to undertake policy analysis and research to strengthen national and regional capacity for developing policies that promote sustainable development, gender equity, and good governance for improvement of the quality of human life" (IPAR, no date).

To meet the above objectives, policy research and analysis at IPAR cover a wide spectrum of areas in various sectors, namely: agriculture, business and finance, education, governance, health, macroeconomics, and private sector.

Research projects undertaken by IPAR include:

- Agriculture:
  - The interaction between agricultural policies, production and consumption of commodities in Kenya with specific reference to maize.
  - A review of agricultural policy issues in Kenya, 1963–1996: an agenda for the future.
  - Implementation and impact of structural adjustment programs in the agricultural sector in Kenya.
  - Agricultural policy reforms and research gaps in Kenya.
  - Provision of agricultural services in a liberalized economy: the case of export crops.
- Business and Finance:
  - Financial disclosure by banks and non-bank financial institutions in Kenya.
  - Impediments to the expansion of the stock exchange in Kenya.
  - Poverty assessment in Kenya.
- Education sector:
  - Access, quality, and efficiency in Kenya's education: confronting future policy challenges and options.
  - Critical factors affecting performance in the Kenya certificate of primary education (KCPE) examinations: investing where it matters.
  - Enhancing efficiency and cost recovery measures in primary education in Kenya.
  - Enhancing the production of gender responsive materials.
- Health:
  - Promoting coverage and access to modern health care through efficiency improvements.
  - Decentralization of financial management systems and efficiency in Kenya's health care delivery.
  - Allocative efficiency of Kenya's medical referral system.
  - Enhancing access to modern health care among the vulnerable groups.
- Macroeconomics:
  - Fiscal policy in a transition economy: issues on Kenya's fiscal policy, the macro-economy, and annual budget.
  - Macroeconomic policy and formal/informal sector dichotomy in Kenya.

IPAR has four categories of publications: workshop reports, discussion papers, occasional papers, and conference proceedings.

The Institute also runs an internship program aimed at:

- Strengthening the capacity for socioeconomic policy formulation and analysis through scientific approaches.
- Enhancing the role and use of electronic methods of data processing as a vital tool in the research process.
- Exposing the interns to training through short courses and international experience through study visits and/or work attachments. This is achieved through collaborative efforts with sister institutions and broadens the scope/perspective of the individual through learning about the experiences of others.

Besides the internship program, the institute also places emphasis on capacity building for researchers and the wider community of scholars and policymakers in the country through networking.

### *E3.4 Malawi*

#### *E3.4.1 Center for Social Research (CSR)*

The CSR,[61] an autonomous institution located in the Faculty of Social Science at Chancellor College, was established in 1979, with support from United Nations Children's Fund (UNICEF), to conduct research, provide training, and to undertake consultancy work. Its professed mission statement is to promote excellence in academic and applied social science research in partnership with the private and public sectors in order to help policymakers and enhance capacity through offering relevant training courses. Currently, its Board consists of the Heads of Departments in the Faculty of Social Science and the Chairperson of the National Research Council. The Dean of Social Science chairs the Board.

CSR's primary resource is its staff. CSR has 34-staff members including 16 professional academic and administrative staff and 18 clerical, technical, and support staff. There are 13-core research staff, two with Ph.D.s, eight with M.Sc./M.Phil. degrees, and three with B.A.s.

The research agenda has concentrated on the following areas:

- Household food policy and nutrition.
- Structural adjustment programs and social, labor, employment, and education policies.
- Housing (urban), water supply, and sanitation.
- Natural resource management, agroforestry, environment, and pollution control.
- Gender and women in development.
- Economic empowerment of the poor focusing on small and medium enterprises and alternative employment for rural households.
- Health sciences.

Following a 1997 stakeholder workshop, some minor adjustments were made in the research agenda, but the overall priorities have not changed. The CSR estimates that currently 70 percent of its research program has a micro rather than macro orientation. Funding for the research program comes from a variety of sources (e.g., IDRC, RF, Carnegie, WHO, ILO, IFAD, World Bank).[62]

Currently, in terms of time allocation, 95 percent is devoted to research and only 5 percent devoted to short-term training courses, although the CSR would like to do more of the latter if the funding was available. Staff teaching in the mainstream academic departments within Chancellor College is currently very limited, the major reason being the regular time commitment that such an obligation takes detracts from time spent in doing funded research necessary for the survival of the CSR. In terms of the research program, the CSR estimates that currently its research effort is allocated as follows: 20 percent to the basic research program, 40 percent to commissioned (i.e., demand-driven) research, and 40 percent to consultancies. Funding limitations necessitate a smaller proportion of the research effort being devoted to the basic research program than CSR would like. Some of the research is undertaken in collaboration with staff and individuals outside the CSR (e.g., with other university staff). Outside professional staff can also become affiliated with the CSR.

The CSR has an interesting approach to the proceeds derived from consultancy work. Staff are able to do 45 days per year (i.e., including weekends) personal consultancy. Twenty percent of the proceeds are charged as overhead with 50 percent of it going to the university administration and the other 50 percent going into a "bonus pool" in the CSR, which is shared out at the end of the year (i.e., 70 percent to the professional staff and 30 percent to the supporting staff).

The CSR feels that its work is widely appreciated and that it has had an important influence on governmental policies. As well as research results being used for teaching purposes, dissemination of results is facilitated through seminars, workshops with

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[61] It was not possible to visit this institution during the field trip and therefore the information is taken directly from an earlier report (Norman 1998), which may no longer be valid.

[62] Definitions of the acronyms not defined earlier in the report are: International Development Research Center (IDRC); World Health Organization (WHO); and International Labor Organization (ILO).

stakeholders, a report series, and sometimes individual project papers. In addition, the secretariat for *The Malawi Journal of Social Science* — which was founded in 1972 by the Faculty of Social Sciences — now resides with the Center and it has also started producing, once per year, *Bwalo*, a document containing discussions on topical subjects. This started in 1997 and is supported with UNDP funds.

Despite the commendable effort put into these journals, it has become extraordinarily difficult to sustain them. Long delays have arisen at the reviewing, editing, and proofreading stages, since these rely on academics who are too busy with teaching or income-diversifying activities such as consultancy work to engage in non-remunerated work for the journal. As a result, producing the journal has become a major struggle. Similar problems also face the *Bwalo*.

CSR's capacity is enhanced by its partnerships with other institutions, within and beyond the University of Malawi, and its involvement in research networks. CSR has been able to complement its own research capacity by involving researchers from other institutions in many of its studies. CSR's affiliation to the University of Malawi has been particularly beneficial, resulting in the involvement of researchers from the Departments of the Faculty of Social Science at Chancellor College in many of the Center's studies. CSR also cooperates with researchers from other faculties and colleges in the University of Malawi, including Bunda College of Agriculture and the College of Medicine.

CSR also engages in research collaboration with academic institutions in several other countries including Canada, the Netherlands, Norway, the UK, the USA, and Zimbabwe. For example, CSR has established link relationships with Cornell University, Harvard Institute for International Development (HIID), the Council for Development of Social Science Research in Africa (CODESRIA), the University of Amsterdam, the University of British Columbia, the Council for Research and Development (COHRED), and the University of Norway.

Although CSR made impressive headway over the past two decades, it recognizes that its work has been too "client-driven". Most of its studies have been commissioned by outside institutions, such as government ministries, NGOs, international agencies, and donors. While many of these studies have addressed important development issues, CSR has essentially been reactive, operating more like a consultancy organization rather than a research institution with its own proactive research agenda.

Because CSR is affiliated to the university, it is not immune to the systemic problems affecting the university, notably the crisis in its financing which has resulted in the unattractive academic salaries and other resource deficiencies.

In 1998, CSR developed a strategic framework for its future development. The strategy will enable the Center to progressively build its capacity to fulfil its mandate in research, outreach, and training. While the Center's main existing strengths are in consultancy, it aims at achieving a better balance in its programs. It is hoped that the Center's time can be divided as follows: 40 percent consultancy, 30 percent applied/basic research (i.e., non-commissioned research), 20 percent training, and 10 percent on outreach.

### *E3.4.2 Agricultural Policy Research Unit (APRU)*

The APRU, located at Bunda College, is much younger than the CSR, dating only from 1994, with the help of funding provided under the USAID Agricultural Sector Assistance Program (ASAP). In this connection, it has been linked with a consortium of four USA-based universities with Lincoln University, Missouri, being the lead institution. It also collaborates externally with IFPRI, Cornell University, the World Bank, University College of Wales, Aberystwyth, and the World Bank.

Concern over national and household food security, export and food crop diversification, declining soil fertility, and deforestation provided the motivation for the formation of APRU. It was reasoned that, if Malawi's economic growth is to continue and is to benefit the poor, addressing these issues in a pragmatic manner would require objective and independent economic and social policy-related research. Hence, the APRU is designed to act as a facility for collaborative research, consultancy, and outreach/training in the search for innovative policies and strategies geared towards the promotion of agricultural and rural development in Malawi. It is designed to act as Bunda College's research wing for agricultural policy-related research, and when desirable to engage in collaborative type research with individuals/groups both within and outside the college/university.

A Board of Directors appointed by the Faculty of Agriculture is the supreme policymaking and advisory body to APRU and is chaired by the Principal of Bunda College of Agriculture. Other members of the Board include the Dean of the Faculty, the Head of the Department of Rural Development and representatives from the Ministry of Agriculture and Irrigation, the National Economic Council and the private sector, among others. The day-to-day running of APRU is by a Program Manager and a deputy.

Until September 1998, APRU's financial obligations were wholly met by USAID. Upon phasing out of project funding, the University of Malawi has assumed financial obligations with respect to staff salaries, housing, and other benefits.

The mission of APRU is to be accomplished through three strategies:

- *Research.* This involves undertaking agricultural policy research through its own research program, commissioned research, and research fellow affiliation. The research studies of the APRU can be classified into eight agricultural policy categories, namely: market reform, prices, alternative technologies, food security/nutrition, environmental and natural resource management, land tenure/reform, women and agriculture, and public investment. Specific types of research that APRU is interested in include: liberalization and development of markets for agricultural inputs and products; smallholder burley tobacco production; evaluation of burley tenant pricing; agricultural diversification, opportunities, and constraints; rural finance and food security; enterprise cost studies; impact of flexible exchange rates on commodity markets; small-scale irrigation; land tenure/reform; dambo use; soil erosion and land degradation; developing location-specific fertilizer recommendations; integrated pest management; analysis of linkages between postharvest losses, food supply systems, and nutritional status at the household level; smallholder seed multiplication schemes; and human resource development in agriculture. Thus, the research program has a heavy emphasis on microeconomic-related issues.
- *Information Retrieval, Documentation, and Dissemination*. This involves publishing research reports, policy briefs, updates on agricultural policy reform, and agricultural policy-related data.
- *Outreach/Training*. This involves conducting outreach/training activities as required in the broad areas of agricultural development and policy. It was anticipated staff would also be involved in teaching courses at the undergraduate and postgraduate level in Bunda College although this does not appear to have occurred much to date. There is also an association with the Agricultural Policy Training Unit which, with support from the World Bank, runs two- to three-week courses for people inside and outside government (i.e., recruited via advertising) on topics relating to policy design and analysis. There is a Training Manager, a 30-bed hostel, and a computer lab with 20 microcomputers. Four to five courses are held per year with resource/teaching personnel drawn from within and outside the college/university.

Also, an Environmental Policy Section has been established with responsibility for natural resource and policy formulation and it is also developing capacity in geographical information systems (GIS).

APRU has developed a five-year strategic plan, 1999–2004, through a participatory process, which involved stakeholders drawn from various institutions, including: The Ministry of Agriculture and Irrigation; the National Economic Council; the National Research Council of Malawi; farmers' representatives; the Ministry of Lands, Housing, and Physical Planning; the Center for Social Research; Bunda College; USAID; UNDP; the media; and APRU staff.

### *E3.5 Mozambique: Policy Analysis Unit (PAU)*

The PAU is located in the headquarters of the Ministry of Agriculture and Rural Development. As its name implies, it has responsibility for advising on policy issues relating to the agricultural sector. It is supported with donor funding via PROAGRI, which is a sector-wide initiative for the reform of agriculture. A number of donors are providing money for this purpose, which is given to the ministry for distribution with the aim of supporting the reform process relating to improving food security and furthering market orientation/liberalization

Two staff linked with Michigan State University and funded by USAID assist the PAU. They have a number of Mozambique colleagues for whom they are providing on-the-job training in policy and statistical analysis, with the aim of eventually sending them for further full-time training at the postgraduate level. The Unit's work responsibilities are largely dictated by the day-to-day needs of the ministry but recent initiatives have related to work on the seed sector, cotton markets, and IFPRI-supported poverty mapping.

## *E3.6 Tanzania*

### *E3.6.1 Economic Research Bureau (ERB)*

The ERB[63] was established in 1965 as an autonomous research department within the Faculty of Arts and Social Sciences in the University of Dar es Salaam. The ERB has more than 15 academic staff members. A Director and a Management Committee facilitate day-to-day operations of the ERB. The ERB has three primary objectives, namely to:

- Implement economic and policy research in support of the economic and social development of Tanzania.
- Carry out public functions in the form of consultancies, contract research, and dissemination.
- Assist the Economics Department in the teaching of economics.

In terms of time allocation currently, the approximate breakdown of the above objectives is as follows: the semi-autonomous research program (20 percent), contract research and consultancies (50 percent), and teaching (30 percent). This breakdown is not considered to be optimal but financial constraints (i.e., both at the institutional and personal level) have forced ERB into having to bias the research activities towards the contract research component. Although this demand-driven research orientation obviously has some relevance in encouraging relevant research, it has the potential disadvantage of being strongly biased towards the immediate and often narrow interests of the funding agencies, and inhibits the development of a well-rounded and coordinated research program which addresses issues and developmental strategies that are potentially important in the overall development of the economy. However, even in terms of the overall research program, financial exigencies have also restricted the nature of the research program, which because of the interests of the Government of Tanzania (i.e., an important funding source), have apparently in the recent past resulted in more of a macro rather than micro emphasis. The ERB's Program Committee, chaired by the Principal Secretary of the Planning Commission, with membership from key government ministries, and public and private institutions including NGOs, approves the overall research program. Apparently much of the micro work is now carried out in autonomous institutions located outside the university with substantial funding from donors (e.g., see Appendices E3.6.2 and E3.6.3).

The main areas of the overall research program are stated to be: trade and industry; monetary, public finance, and the government's development capacity; rural and informal sector development; environmental economics; and gender issues. Complementing these research activities, specific efforts are made to encourage policy dialogue through organizing biweekly seminars, conferences, and since 1984 in collaboration with the Department of Economics, an annual National Economic Policy Workshop. Participants at these events include representatives from all walks of life and invitees include politicians, government officials, the donor community, and other public and private organizations. Additional ways of disseminating results are via publications in the form of journal articles, working papers, and monographs. The ERB produces a publication on Tanzania Economic Trends and the ERB Series. Apparently, the National Economic Policy Workshops usually lead to the publication of selected and revised papers. Annual Reports are also produced

In terms of teaching, in addition to ERB staff helping teach courses in the Department of Economics, the ERB also organizes specifically focused short courses. Staff also act as supervisors for M.A. and Ph.D. students.

Domestically, the ERB nurtures linkages with research and academic institutions, and other organizations in the public and private sectors, and also has linkages with many international organizations — e.g., the Center for Development Research (CDR) in Copenhagen, Denmark; Consultants for Development Programs (CDP), in Utrecht, the Netherlands; the AERC; the University of Lund; Trondheim University; Brown University; etc.).

The Government of Tanzania remains an important source of financing for the ERB, in providing salaries and other personal emoluments, housing, office space and other infrastructure-related facilities, job security, etc. However, financial exigencies have

[63] The ERB comes under the jurisdiction of the Department of Economics at Dar es Salaam. Staff members are expected to spend up to 40 percent of their time teaching in the department. Therefore, the material in this section, which is based on an earlier report (Norman 1998), was cleared with the Head of the Department of Economics.

forced reliance on donor support, for example, the Netherlands Government, the Swedish International Development Authority (SIDA), Norwegian Agency for International Development (NORAD), Danish International Development Agency (DANIDA), etc.

*E3.6.2 The Economic and Social Research Foundation (ERSF)*

The ESRF is an NGO, which commenced operations in 1994. Thirty percent of its funding comes from the African Capacity Building Fund (ACBF) and the rest is solicited from donors. The overall objective of the ESRF is to strengthen human and institutional capabilities in economic and social policy analysis and decisionmaking, and to improve understanding of policy options within the government and the public sector, the donor community, and in NGOs. The main focus is on, but not necessarily confined to, Tanzania.

The specific objectives and functions of the ERSF are to:

- Implement research and studies in economic and social policies.
- Undertake contracted studies in economic and social policies.
- Promote informed policy dialogue between the "actors" responsible for design and implementation of economic and social policies.
- Collaborate with training institutions in providing in-service training in economic and social policy analysis.
- Provide an institutional base for all those interested in social and policy analysis (e.g., for academics, government officials, NGO staff).
- Cooperate with other institutions in policy, training, and exchange of staff.

A Board of Trustees whose members are drawn from the government, Central Bank, academia, the private sector, and also from international scholars, guides the ESRF. The ERSF is managed by a small secretariat consisting of the Executive Director and three other core researchers, plus research assistants and administrative staff. Some of the research is done in collaboration with individuals outside ERSF, for example, in the University of Dar es Salaam. The decision to be established as an autonomous NGO was made in the belief that the ERSF would be better placed to act as a "think tank" and would be perceived as having a neutral stance with reference to policy-related issues.

Initially, the planned approximate time allocation between the four major work components was as follows: research program (30 percent); contract research (30 percent); policy dialogue (30 percent); and training (10 percent). However, policy dialogue in practice is now much lower and capacity building (i.e., training) is much higher than originally envisioned. A few pertinent points about these different activities are as follows:

- The research program focuses on seven themes:
  - **T** Investment.
  - **T** Aid and self-reliance.
  - **T** Trade, technology, and industrialization.
  - **T** Survival strategies and human resource development.
  - **T** The challenge of rural development.
  - **T** Integrating environmental with economic and social concerns.
  - **T** The state and markets.
- In terms of contract research, priority is given to themes related to the research program, while the feasibility of administering it is also taken into consideration, before agreeing to be responsible for its administration.
- Policy Dialogue takes place in the form of occasional seminars, workshops, conferences, and round-table discussions with the aim of:
  - **T** Facilitating the exchange of views by different stakeholders on policy issues.
  - **T** Stimulating discussions on topical policy issues.
  - **T** Enhancing awareness relating to policy issues.
  - **T** Encouraging dialogue on implications of research findings on policy analysis and action.
  - **T** Identifying areas for further policy research.
- In terms of training a needs assessment study on policy-related issues was done for government. Courses implemented usually last for about two weeks with up to 30 participants consisting of trainers and/or stakeholders, and usually emphasize macro-related topics with some of the teaching contracted to individuals outside ERSF. Training initiatives have grown steadily in

importance in the activities of ERSF and World Bank funding has been obtained to develop training modules (i.e., with the help of individuals from outside ERSF) on economic analysis topics designed to help people in government ministries undertake needs assessment and economic analyses of various types. Short- and relatively long-term training (i.e., up to three months) courses are envisioned in the future.

Results of ERSF activities are disseminated in a number of ways:

- A newsletter that is issued two to four times a year.
- A *Research Report* series.
- A *Policy Dialogue Series*, which are small booklets, targeted to policy decisionmakers.
- A *Quarterly Economic Review* devoted to development and policy-related matters in Tanzania.
- Publications in journals and other external outlets.

*E3.6.3 Research on Poverty Alleviation (REPOA)*

The REPOA program is a NGO, which commenced operations in 1995 with funding from the Netherlands.[64] The overall objective of REPOA is to improve the understanding of the causes, extent, nature, rate of change, and means of combating poverty in Tanzania. More specific objectives are to:

- Improve local capacity for implementing poverty-related research.
- Develop an effective local poverty research network with links to the outside world.
- Improve understanding of poverty issues with grassroots organizations, local researchers/ research organizations, and policy decisionmakers.
- Help in developing policies aimed at combating poverty.
- Develop linkages between all the parties interested in poverty-related research and those responsible for the development/implementation of solutions to the poverty problem.

The REPOA is structured as follows:

- The Board of Directors (BOD), composed of influential representatives from the public and private sectors gives overall guidance for setting program policies, approving research grants and training agenda, approving other annual plans, and reviewing the finances of the program.
- The Technical Advisory Committee (TAC) is composed of nine leading practitioners, policymakers, and researchers. The TAC is responsible for setting and sending to the BOD recommendations on the program's agenda on research, training, and proposals to be funded. It also gives advice to the Secretariat on many matters (e.g., dissemination of research results, ways to link researchers, and research users). The members also act as external resource persons in the review of research proposals.
- A Program Secretariat, consisting of two professional economists and supporting staff, administer the program and provide logistical support to researchers.

Qualified researchers receiving grants from REPOA implement the research program. Two mechanisms are used:

- The Open Competitive System (OCS) in which potential researchers apply for funds to undertake research on one of the following subthemes:
  - **T** Implications of public policies on poverty alleviation.
  - **T** Linkage between poverty and the environment.
  - **T** Role of technology in poverty alleviation.
  - **T** Role of gender in poverty alleviation.
  - **T** Social cultural determinants of poverty.

  Funding per grant is usually in the area of US$10,000 to US$15,000 with a project duration of six months to a year.

[64] It was not possible to visit REPOA during our field trip. However, until recently, the Head of the Economics Department at Dar es Salaam, was on leave of absence with REPOA, and agreed that the following material taken from Norman (1998) was still valid.

- The Structured Research Program (SRP) in which the initiator is REPOA, which commissions experienced researchers to do research on a specific topic. Recent topics have involved:
  - **T** Definition and measurement of poverty in the Tanzanian context.
  - **T** Understanding the dynamics of poverty in the urban labor market.
  - **T** Trends in, and influence of, policies on rural poverty.
  - **T** Social dimensions (e.g., access to health, education, etc.) of poverty.

  The SRP is designed to fill in gaps of topics granted under the OCS and to provide a means of "cementing" together or giving a more holistic picture of the results from the research in the five subthemes under the OCS. Results from the SRP are also likely to provide insights as to relevant topics for the next round of OCS proposals. Much of the research work supported under the OCS has a micro orientation while to some extent the SRP can be viewed as an effort to place the results of such studies in more of a macro framework.

The REPOA, with the help of the network of researchers it is developing and nurturing, also responds positively to opportunities to do "contract type" research, particularly where the proposed topics are compatible with its poverty alleviation mission. Currently, for example, REPOA is working with DFID on issues relating to social services delivery.

In addition to the above, another element in capacity and competence building is a grants program for Ph.D. thesis writing for Tanzanian Ph.D. students who can apply for grants under the OCS and receive help in REPOA-sponsored research method training workshops.

Funding for the OCS, training, and running the Program Secretariat is provided from the Netherlands funds. In an effort to reduce dependence on one donor and to improve the chances of sustainability in the long run, support from other donors is being sought for the SRP.

Dissemination of results is accomplished via the following formats:

- Holding an annual stakeholder workshop at which research findings are presented and current proposals are presented for comment/feedback.
- A biannual newsletter in which abstracts of completed research projects are given.
- *Producing Working Papers* (very limited distribution) and externally reviewed *Research Reports* (i.e., 1,000 copies available for purchase at bookshops) on the results of research projects.
- Plans to publish small booklets on policy implications targeted to those influential in designing/implementing policies to combat poverty.

#### *E3.6.4 Other Social Science-Oriented Research Institutions*

There are two other social science-oriented research institutions in the University of Dar es Salaam. Unfortunately, it was not possible to visit them. Rather than being mainly focused on economic issues, they apparently have a wider representation of social science disciplines and thus a wider remit in terms of the research that they implement. They are the Institute of Development Studies and the Institute of Resource Assessment.

### ***E3.7 Uganda***

#### *E3.7.1 Economic Policy Research Center (EPRC)*

The EPRC, formed in 1994, is an independent institution, located on the Makerere University Campus with six professional (research) staff, four of whom have Ph.D.s — one of the four is currently the Acting Executive Director. It is funded from a variety of sources including the Ugandan Government (10 percent), commissioned studies (20 percent), the ACBF (60 percent), and other donors (10 percent). It has a 13-member strong Board of Management consisting of representatives from the government, the university, and the private sector; and its mission is to build capacity for policy analysis and decisionmaking in Uganda through research, training, and information dissemination. The agreed research themes cover wide-ranging areas including:

- Macroeconomics (e.g., public deficits, interest rates, savings, investment, etc).
- Fiscal and monetary policies.

- Decentralization.
- Public expenditure tracking.
- Poverty analysis.
- Trade and market liberalization.
- Regional integration.
- Agriculture (i.e., agricultural modernization, food security, etc.).
- Resource and environmental economics.

The specific research program is a mix of supply- and demand-driven (i.e., commissioned) studies, and a six member Research Advisory Committee guides the Center. Research results are presented at a series of workshops usually attended by the policymakers, academia, private sector, and the civil society. Research output is also summarized in Policy Briefs which are distributed to a wide audience but are targeted mainly to policymakers in government. Original detailed research results are published in a *Research Paper Series*.

Building capacity for policy analysis among Ugandan researchers is considered an important objective of the EPRC. This objective is pursued through institutional (support) attachments, training, and through hands-on research-type activities. This is implemented through two initiatives:

- The Young Professional Program, in which individuals have three-year contracts, which often involve attachment at overseas institutions (e.g., University of Oxford, East Anglia) or local institutions (e.g., private-sector foundation, UNDP, etc.).
- The Staff Secondment Scheme, which involves short-term attachments of senior line ministry staff at EPRC to do research on problems of interest to the ministry from which they come.

Other points to note about the EPRC are that:

- It has developed linkages, collaboration, and networking with a number of other institutions (e.g., within the university and with Harvard, McGill, Oxford, and East Anglia universities; the Free University of Amsterdam; AERC; ACBF-funded Policy Research Centers in Sub-Saharan Africa; etc.).
- The professional staff supervise postgraduates in Makerere, are involved in occasional teaching, and sometimes act as external examiners for the university.
- The EPRC also offers graduate fellowships (about 10 each year) for the M.A. in Economics as well as for the M.Sc. in Agricultural Economics.
- The ultimate sustainability of the EPRC is currently a major concern.

#### *E3.7.2 Other Social Science-Oriented Institutions*

Other institutions within Makerere University that have somewhat of a social science orientation or some social science representation are the Institute of Statistics and Applied Economics and the Makerere Institute of Social Research. Off campus, there is the Center of Basic Research and the Institute of Environment and Natural Resources.

### ***E3.8 Zimbabwe***

#### *E3.8.1 Institute for Development Studies (IDS)*

The IDS[65] originated as a statutory body in 1984 but, as a result of a governmental decision, became associated with the University of Zimbabwe in 1990. Its main goal is to contribute to the sustainable (i.e., social and economic) development of Zimbabwe and Southern Africa through:

- Undertaking high quality policy-oriented and academic research.

[65] Time did not permit a visit to this institute or time to talk to someone who could provide information on the current status. Therefore the information in this section, which was taken from Norman (1998), may be somewhat dated.

- Providing short-term training courses on development/policy-oriented issues, and helping in teaching courses in academic departments in the university.
- Sharing and disseminating research findings with local, regional, and international institutions via public seminars and publications.
- Providing consultancy services.

Administratively, IDS is divided into three departments with the following professional staff:

- Agrarian and Labor Studies staffed with two Ph.D.s and three other researchers.
- Economics and Technology Studies staffed with one Ph.D. and six other researchers.
- International Relations and Social Development Studies staffed with four Ph.D.s and three other researchers.

The university pays IDS staff salaries, but with the dwindling resources available to the University Board of Research most of the funding for the institute comes from external sources.

Over the years, IDS has established linkages with a number of external institutions such as the Carnegie Institute of Science and Technology, and Bergen and Wilfred Laurier Universities. Research sometimes involves collaborative activities with individuals both in and outside the university and focuses on five major program areas, namely: economic reform policy and strategies; agrarian reform policy and strategies; economic indigenization; population, gender, and development; and globalization, regional integration, and democratization.

A relatively recent (i.e., December 1997) interesting initiative as far as IDS is concerned was being one of the hosts for the World Bank-supported Poverty Forum Consortium which is supporting the Structural Adjustment Participatory Research Initiative (SAPRI) operating in a number of countries (e.g., Mali, Ghana, Uganda, Zimbabwe, Hungary, etc.). Currently (i.e., 1998), the initiative is focusing on eliciting views of people throughout the country on what should be done with a view to empowering them to help them find their own solutions.

In the opinion of IDS staff members, most of the research undertaken by IDS has more of a micro rather than macro emphasis. The split between the above list research agenda and commissioned (demand-driven) studies is about 60 percent and 40 percent. In addition, staff engage in private consultancies.

Currently, the IDS library has one of the best development study collections in the region with about 11,000 books, 200 current journal subscriptions, and 20,000 documents from similar research institutes and from government departments. The library catalogue is computerized and CD-Rom service is available for several social science databases.

In terms of exchange and dissemination of findings, IDS:

- Organizes and hosts public seminars.
- Is often represented on government-appointed panels and committees.
- Publishes working, discussion, and research papers; monographs; consultancy reports; books; and articles in books and journals.

### *E3.8.2 Other Institutions*

There are apparently a number of other institutions that have been formed or are in the process of being formed that propose to focus on development related issues. However, time did not permit tracking any of these down. Two of them are the following:

- The Southern African Political Economic Series (SAPES) Trust which is apparently offering a master's degree in political science (MPS).
- The recently formed (i.e., 1998) Southern Africa Gender Institute (SAGI) Trust, an NGO, which is to undertake research associated with the development and interests of women and men in the SADC region. It is the first SADC-wide organization whose sole purpose is to provide gender-oriented research, training, and capacity building for other organizations as well as for individuals. It will seek to establish and consolidate a network of policymakers and gender activists.

# APPENDIX F — PAPERS CONSULTED

A number of university catalogues and mimeographed materials provided by university departments were consulted — these have usually not been listed below. The references listed were all consulted but were not necessarily specifically referred to in the report itself.


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# APPENDIX G — DEFINITION OF ACRONYMS

| | |
|---|---|
| AAEA | American Agricultural Economics Association (USA) |
| ACBF | African Capacity Building Fund (Harare, Zimbabwe) |
| ACP | African, Caribbean and Pacific Group of States |
| ADD | Agricultural Development District (Malawi) |
| AERC | African Economic Research Consortium (Nairobi, Kenya) |
| AGREST | Agricultural Economics Society of Tanzania (Tanzania) |
| APRU | Agricultural Policy Research Unit (Bunda College, Malawi) |
| ARF | Agricultural Research Fund (World Bank) |
| ARTP | Agricultural Research Training Program (Ethiopia) |
| ASAP | Agricultural Sector Assistance Program (USAID, USA) |
| ASARECA | Association for Strengthening Agricultural Research in Eastern and Central Africa (Entebbe, Uganda) |
| | |
| B.A. | Bachelor of Arts |
| BABM | Bachelor of Agricultural Business Management |
| BACAS | Bureau of Agriculture Consultancy and Advisory Services (Sokoine University, Tanzania) |
| B.Comm. | Bachelor of Commerce |
| BOD | Board of Directors (REPOA, Dar es Salaam, Tanzania) |
| B.Sc. | Bachelor of Science |
| | |
| CBO | Community Based Organization |
| CDP | Consultants for Development Programs (Utrecht, Netherlands) |
| CDR | Center for Development Research (Copenhagen, Denmark) |
| CEF | Center for Forestry Research (Mozambique) |
| CGIAR | Consultative Group on International Agricultural Research |
| CIMMYT | International Maize and Wheat Improvement Center |
| CMAP | Collaborative Master's Program (AERC, Nairobi, Kenya) |
| CODESRIA | Council for the Development of Social Science Research in Africa (Dakar, Senegal) |
| COHRED | Council for Research and Development (Linked with UNDP) |
| COMESA | Common Market for Eastern and Southern Africa |
| CRSP | Collaborative Research Support Program (USA) |
| CSR | Center for Social Research (Zomba, Malawi) |
| | |
| DAAD | Deutscher Akademischer Austauschdienst (Bonn, Germany) |
| DANIDA | Danish International Development Agency (Copenhagen, Denmark) |
| DARTS | Department of Agricultural Research and Technical Services (Malawi) |
| DFID | Department for International Development (UK) |
| D.Phil. | Doctor of Philosophy |
| | |
| EARO | Ethiopian Agricultural Research Organization (Ethiopia) |
| ECAPAPA | East and Central Africa Program for Agricultural Policy Analysis (Entebbe, Uganda) |
| EDI | Economic Development Institute (World Bank, Washington DC, USA) |
| EDRI | Economic Development Research Institute (Addis Ababa, Ethiopia) |
| EPMP | Economic Policy Management Program (ACBF, Harare, Zimbabwe) |
| EPRC | Economic Policy Research Center (Makerere University, Uganda) |
| EPWG | Economic Policy Working Group (Soil Fert Net, Harare, Zimbabwe) |
| ERB | Economic Research Bureau (University of Dar es Salaam, Tanzania) |
| ERSF | Economic and Social Research Foundation (Dar es Salaam, Tanzania) |
| ESSD | Environmentally and Socially Sustainable Development Network (World Bank) |
| EU | European Union |

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|---|---|
| FANRPAN | The Food, Agriculture and Natural Resources Policy Consortium and Network for Southern Africa (University of Zimbabwe, Harare, Zimbabwe) |
| FARMESA | Farming Systems Program for Eastern and Southern Africa (Harare, Zimbabwe) |
| FSTAU | Food Security Technical and Advisory Unit (Harare, Zimbabwe) |
| FTSE | Full-Time Student Equivalent |
| GCA | Global Coalition for Africa |
| GDP | Gross Domestic Product |
| GIS | Geographical Information System |
| GTZ | Deutsche Gesellschaft fur Technische Zusammenarbeit (Bonn, Germany) |
| HIID | Harvard Institute for International Development (USA) |
| IAR | Institute for Agricultural Research (Ethiopia) |
| ICRISAT | International Center for Research in the Semi-Arid Tropics |
| IDEAA | The Initiative for Development and Equity in African Agriculture (University of Zimbabwe, Harare, Zimbabwe) |
| IDR | Institute of Development Research (University of Addis Ababa, Ethiopia) |
| IDRC | International Development Research Center (Ottawa, Canada) |
| IDS | Institute for Development Studies (Harare, Zimbabwe) |
| IFAD | International Fund for Agricultural Development (Rome, Italy) |
| IFPRI | International Food Policy Research Institute |
| ILO | International Labour Organization |
| ILRI | International Livestock Research Institute |
| INEAC | Institut National Pour l'Etude Agronomique au Congo |
| INIA | National Institute of Agronomic Research (Maputo, Mozambique) |
| INIVE | National Veterinary Research Institute (Maputo, Mozambique) |
| INTSORMIL | The Sorghum and Millet CRSP (USA) |
| IPA | Animal Production Institute (Maputo, Mozambique) |
| IPAR | Institute of Policy Analysis and Research (Nairobi, Kenya) |
| ISAE | Institute of Statistics and Applied Economics (Makerere University, Uganda) |
| ISAR | Institut des Sciences Agronomique du Rwanda (Rwanda) |
| ISNAR | International Service for Agricultural Research |
| IUCN | The World Conservation Union |
| JAED | Journal of Agricultural Economics and Development |
| JFE | Joint Facility for Electives (AERC, Nairobi, Kenya) |
| JKUAT | Jomo Kenyatta University of Agriculture and Technology (Kenya) |
| KARI | Kenya Agricultural Research Institute (Kenya) |
| KIPPRA | Kenya Institute for Public Policy Research and Analysis (Nairobi, Kenya) |
| M.A. | Master of Arts |
| MABM | Master of Agricultural Business Management |
| MADER | Ministry of Agriculture and Rural Development (Mozambique) |
| M.Phil | Master of Philosophy |
| MASIP | Malawi Agricultural Sector Investment Program (Malawi) |
| MOU | Memorandum of Understanding |
| M.Stat. | Master of Statistics |
| MUIE | Makerere University Institute of Economics (Makerere University, Kampala, Uganda) |
| MSU | Michigan State University (East Lansing, USA) |
| NARO | National Agricultural Research Organization (Uganda) |

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|---|---|
| NARS | National Agricultural Research System |
| NGO | Non-Governmental Organization |
| NORAD | Norwegian Agency for International Development (Oslo, Norway) |
| OCS | Open Competitive System (REPOA, Dar es Salaam, Tanzania) |
| OECD | Organization for Economic Cooperation and Development |
| OSU | Ohio State University (USA) |
| PAU | Policy Analysis Unit (MADER, Maputo, Mozambique) |
| Ph.D. | Doctor of Philosophy |
| PM | Prime Minister |
| R&D | Research and Development |
| RELO | Research Extension Liaison Officer |
| REMPAI | Resource and Environment Management Policy Analysis Institute (Nairobi, Kenya) |
| REPOA | Research Poverty Alleviation Program (Dar es Salaam, Tanzania) |
| RF | Rockefeller Foundation |
| SACCAR | Southern African Center for Cooperation in Agricultural Research (Gaborone, Botswana) |
| SADC | Southern African Development Community |
| SAGI | Southern African Gender Institute (Harare, Zimbabwe) |
| SAPRI | Structural Adjustment Participatory Research Initiative |
| SAP | Structural Adjustment Program |
| SAPES | Southern African Political Economic Series Trust (Harare, Zimbabwe) |
| SIDA | Swedish International Development Authority (Stockholm, Sweden) |
| SPAAR | Special Program for African Agricultural Research |
| SRP | Structured Research Program (REPOA, Dar es Salaam, Tanzania) |
| SSA | Sub-Saharan Africa |
| TAC | Technical Advisory Committee (REPOA, Dar es Salaam, Tanzania) |
| TARP | Tanzanian Agricultural Research Program (Tanzania) |
| TEEAL | The Essential Electronic Agricultural Library |
| TOR | Terms of Reference |
| UNDP | United Nations Development Program |
| UNICEF | United Nations Children's Fund |
| UPS | Uninterrupted Power Source |
| USA | United States of America |
| USAID | United States Agency for International Development (Washington DC, USA) |
| UZ | University of Zimbabwe |
| VOCA | Voluntary Overseas Cooperative Assistance |
| WHO | World Health Organization |

# APPENDIX H — ITINERARY

Marios Mbwona — MO
David Norman — DN (Team Leader)

The details in the itinerary represent the major activities that took place each day. As such it does not include time spent in team discussions and work on the report that usually took place in the evenings. If no initials appear both of us were present.

| Date | Day | Time | Activity |
|---|---|---|---|
| May 13th | Sun | am | Arrival Nairobi, Kenya (DN) |
| | | pm | Arrival Nairobi, Kenya (MO)<br>Team meeting |
| May 14th | Mon | am/pm | Meeting with Coordinator and Chair of the of the Regional Advisory Board of 2020 Vision Network for East Africa, Coordinator of the ECAPAPA Network, Training Director/Deputy Director of AERC, and three staff of the Rockefeller Foundation, Nairobi Office. (Also lunch with most of the above and with the former Director of AERC) |
| May 15th | Tues | am | < Travel by road to Egerton<br>< Meeting with the Head of the Economics Department, Egerton University<br>< Meeting with staff member of the Agricultural Economics and Business Management Department |
| | | pm | < Travel by road to Nairobi<br>< Visit to Nairobi Rockefeller Foundation office for logistical matters<br>< Brief meeting with a team member of the ECAPAPA Review Team |
| May 16th | Weds | am | < Meeting with the Director of the Institute for Human Resources Development, Jomo Kenyatta University of Agriculture and Technology (JKUAT)<br>< Meeting with staff member of the Economics Department, Kenyatta University<br>< Meeting with the Acting Coordinator of Agriculture and courtesy visit to the Executive Director of the Institute of Policy Analysis and Research (IPAR)<br>< Meeting with the Acting Head and staff of the Economics Department, University of Nairobi<br>< Brief meeting with Principal Scientist/Project Manager SADC ICRISAT SMIP, Bulawayo, Zimbabwe and Principal Scientist/Site Manager, ICRISAT, Nairobi (DN) |
| May 17th | Thurs | am | < Meeting with Acting Head, Department of Agricultural Economics, University of Nairobi<br>< Meeting with four staff of the Department of Agricultural Economics, University of Nairobi<br>< Courtesy meeting with the Professor of Food Technology/Dean Faculty of Agriculture, University of Nairobi<br>< Meeting with staff member of the Socio-Economics Unit, Kenya Agricultural Research Institute |
| | | pm | < Courtesy meeting with the Head of the Agricultural Research Fund, Kenya Agricultural Research Institute<br>< Logistic related visit to the Rockefeller Foundation office, Nairobi<br>< Meeting with the Training Officer/Deputy Director, AERC |

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| May 18th | Fri | am | < Meeting with the Executive Director, Resource Management and Policy Analysis Institute (REMPAI)<br>< Meeting with Kenya Coordinator of the IFPRI 2020 Vision Network/Senior Analyst of the Kenya Institute for Public Policy Research and Analysis (KIPPRA) |
| | | pm | < Logistical meeting at Rockefeller Foundation<br>< Preparing background material for the report |
| May 19th | Sat | am | By air to Addis Ababa, Ethiopia |
| | | pm | < Short meeting with Ethiopia Coordinator of the IFPRI 2020 Vision Network/Senior Research Fellow of the Ethiopian Development Research Institute (EDRI)<br>< Planning report<br>< Dinner with Ethiopia Coordinator of the IFPRI 2020 Vision Network/Senior Research Fellow of the EDRI |
| May 20th | Sun | am | < Working on report |
| | | pm | < Working on report<br>< Dinner with Ethiopia Coordinator of the IFPRI 2020 Vision Network/Senior Research Fellow of the EDRI |
| May 21st | Mon | am | < Meeting with Acting Head and four staff members of the Economics Department and the Ethiopia Coordinator of the IFPRI 2020 Vision Network |
| | | pm | < Meeting with Director General and the Head of the Socioeconomics Department of the Ethiopian Agricultural Research Organization (EARO) and the Ethiopia Coordinator of the IFPRI 2020 Vision Network<br>< By plane to Dire Diwa<br>< Planning report |
| May 22nd | Tues | am | < By road to Alemaya University<br>< Meeting with Professor (i.e., an Indian), Agricultural Economics Department<br>< Meeting with the President of Alemaya University and Professor (i.e., an Indian), Department of Agricultural Economics<br>< Meeting with Coordinator of the Agricultural Research Training Program (ARPT)/ part time Lecturer, Agricultural Economics Department, and former Department Head/Lecturer of Agricultural Economics Department (currently on study leave) |
| | | pm | < Meeting with Lecturer, Animal Science Department, responsible for farming systems courses (currently on study leave and formerly in the Agricultural Economics Department) and former Department Head/Lecturer of Agricultural Economics Department (currently on study leave)<br>< By road to Alemaya University<br>< Dinner with Ethiopia Coordinator of the IFPRI 2020 Vision Network/ Senior Research Fellow of the EDRI |
| May 23rd | Weds | am | Work on report |
| | | pm | By plane to Entebbe/Kampala, Uganda |
| May 24th | Thurs | am | < Meeting with the Vice Chancellor, Makerere University accompanied by the Coordinator of the IFPRI 2020 Vision Network for East Africa |

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| | | | < Meeting with Associate Dean, Faculty of Agriculture accompanied by the Coordinator of the IFPRI 2020 Vision Network for East Africa<br>< Meeting with Acting Head/Associate Professor, Institute of Economics<br>< Meeting with Acting Head/Lecturer, Department of Agricultural Economics and four staff members |
| | | pm | < Meeting with the Coordinator of the IFPRI 2020 Vision Network for East Africa<br>< Meeting with the Senior Assistant Registrar, School of Postgraduate Studies<br>< Meeting with the Director, Institute of Statistics and Applied Economics<br>< Dinner with the Coordinator and Uganda Coordinator of the Forum Program, the Dean of Agriculture and Forum grantees and prospective grantees and their spouses (DN) |
| May 25th | Fri | am | < Meeting with the Director, Planning, Monitoring and Evaluation, National Agricultural Research Organization (NARO), Entebbe<br>< Meeting with the Coordinator of the East and Central Africa Program for Agricultural Policy Analysis (ECAPAPA) Network, Entebbe |
| | | pm | < Meeting with the Coordinator of the IFPRI 2020 Vision Network for East Africa<br>< Work on report |
| May 26th | Sat | am | Work on report |
| | | pm | < Work on report<br>< Lunch with Country Leader, Research Project on Policies for Improved Land Management, IFPRI (DN)<br>< By plane to Kigale, Rwanda |
| May 27th | Sun | am | Work on report |
| | | pm | Work on report |
| May 28th | Mon | am | < Travel by road to Butare<br>< Meeting with two staff of the Department of Economics, National University of Rwanda<br>< Meeting with the Dean of the Faculty of Economics, Social Sciences and Management<br>< Meeting with Assistant Lecturer in Agricultural Economics, Faculty of Agriculture |
| | | pm | < Courtesy visit to the Vice-Rector (Academic Affairs), National University of Rwanda<br>< Meeting with Head of Planning, Monitoring, and Evaluation Department, Institut des Sciences Agronomique du Rwanda (ISRA)<br>< Travel by road to Kigali |
| May 29th | Tues | am | < Ethiopian flight cancelled - rearranged trip (MO)<br>< Worked on report |
| | | pm | By plane to Entebbe |
| May 30th | Weds | am | By plane to Dar es Salaam |
| | | pm | < Logistical meeting with Personal Assistant, Economic and Social Research Foundation (ERSF)<br>< Brief meeting with International Trade staff member, ERSF<br>< Meeting with Head of Department of Economics, University of Dar es Salaam who was formerly associated with the Research on Poverty Alleviation (REPOA) program |

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| May 31st | Thurs | am | Work on report |
| | | pm | < Meeting with International Trade staff member, ERSF |
| | | | < By road to Morogoro |
| | | | < Short meeting with two Senior Lecturers (Farm and Business Management, and Resource and Environmental Economics), Department of Agricultural Economics and Agribusiness, Sokoine University of Agriculture |
| June 1st | Fri | am | < Courtesy meeting with Dean and Associate Dean of Agriculture |
| | | | < Meeting with Senior Lecturer (Farm and Business Management), Department of Agricultural Economics and Agribusiness |
| | | | < Meeting with Senior Lecturer (Agricultural Finance) and Lecturer (Price Analysis and Econometrics), Department of Agricultural Economics and Agribusiness |
| | | pm | < By road to Dar es Salaam |
| | | | < Meeting with Senior Lead Specialist Macroeconomics, World Bank, Dar es Salaam/former Executive Director of AERC |
| June 2nd | Sat | am/pm | Work on report |
| June 3rd | Sun | am/pm | Work on report |
| June 4th | Mon | am | By air to Lilongwe |
| | | pm | < By road to Bunda College |
| | | | < Meeting with Vice Principal/Associate Home Economics/Human Nutrition |
| | | | < Meeting with Malawi Coordinator, IFPRI 2020 Vision Network for East Africa and Head of Agricultural Policy Research Unit (APRU), Bunda College |
| June 5th | Tues | am | < Meeting with Research Fellow, APRU, Bunda College, National Coordinator, Malawi Agricultural Sector Investment Program (MASIP), Ministry of Agriculture and Irrigation, Lilongwe, Program Officer, United Nations Development Program (UNDP), Lilongwe, and Director, Capacity Building Initiative, Lilongwe |
| | | | < Meeting with Head of Rural Development Department, Bunda College |
| | | pm | < Meeting not held due to a death - Principal Secretary, Ministry of Agriculture and Irrigation, Lilongwe and Principal Secretary for National Research Council, Lilongwe |
| | | | < Meeting with Lecturer, Department of Economics, Chancellor College, Zomba |
| | | | < Social meeting with Principal, Bunda College |
| June 6th | Weds | am | Work on report |
| | | pm | < Work on report |
| | | | < Meeting with Lecturer, Rural Development Department |
| June 7th | Thurs | am | By air to Harare, Zimbabwe |
| | | pm | < Meeting with Dean of Agriculture, University of Zimbabwe, and two faculty of the Department of Agricultural Economics and Extension[66]66 |
| | | | < Meeting with three staff members of the Department of Agricultural Economics and Extension |

[66] From this point on, the Coordinator of the IFPRI 2020 Vision East African Regional Network joined us and attended some of the meetings.

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| June 8th | Fri | am | < Meeting with Head of Department of Economics, University of Zimbabwe<br>< Meeting with Program Manager, Research and Training Capacity Building, The African Capacity Building Foundation, Harare |
| | | pm | < Meeting with Program Team Leader, Central and Horn of Africa, The African Capacity Building Foundation, Harare<br>< Work on report |
| June 9th | Sat | am | Work on report |
| | | pm | < By air to Johannesburg and by road to Pretoria<br>< Meeting with Head of Department of Agricultural Economics and Extension, University of Pretoria and two of his lecturing staff |
| June 10th | Sun | am | Work on report |
| | | pm | < By road to Johannesburg and by air to Maputo<br>< Meeting with Visiting Associate Professor (Michigan State University), Policy Analysis Unit, Ministry of Agriculture and Fisheries, Maputo and Research Fellow, Food Consumption and Nutrition Division, IFPRI, Washington, DC |
| June 11th | Mon | am | Meeting with the Dean, Deputy Dean of Teaching, and Deputy Dean of Research, of the Faculty of Economics and Business, and the Head of the Economics Department, Eduardo Mondlane University |
| | | pm | < Meeting with the Head of the Agricultural Economics Section, Faculty of Agronomy and Forestry Engineering, Eduardo Mondlane University<br>< Meeting with Visiting Associate Professor (Michigan State University), and Policy Analyst, both of the Policy Analysis Unit, Ministry of Agriculture and Fisheries, Maputo, and Professor of Agricultural Economics, Michigan State University<br>< Meeting with the Director of the National Agronomy Research Institute (INIA) and a staff member (Cashew Breeder), INIA, Maputo (DN) |
| June 12th | Tues | am | Work on report (DN)<br>Led workshop on Proposal Writing Skills (MO) |
| | | pm | < Lunch with Visiting Associate Professor (Michigan State University), Policy Analysis Unit, Ministry of Agriculture and Fisheries, Maputo (DN)<br>< Work on report (DN)<br>< Led workshop on Proposal Writing Skills (MO) |
| June 13th | Weds | am | Work on report |
| | | pm | < By plane and road to Pretoria<br>< Meeting with staff member, Department of Agricultural Economics and Extension, University of Pretoria, in charge of Regional Environmental Economics initiative |
| June 14th | Thurs | am/pm | By road to Johannesburg and plane to Nairobi |
| | | pm | < Logistical visit to Rockefeller Foundation Nairobi office (MO)<br>< Work on report |
| June 15th | Fri | am | < Logistical visit to Rockefeller Foundation Nairobi office (MO)<br>< Work on report |
| | | pm | Work on report |

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|---|---|---|---|
| June 16th | Sat | am/pm | Presentation of findings to Steering Group plus three visitors |
| | | pm | Meeting with Coordinator of the IFPRI 2020 Vision East African Regional Network |
| June 17th | Sun | am | Work on report |
| | | pm | Work on report |
| June 18th | Mon | am | < Logistical visit to Rockefeller Foundation office, Nairobi |
| | | | < Meeting with Director of Training, AERC |
| | | | < Work on report |
| | | pm | Work on report |
| June 19th | Tues | am | < Work on report |
| | | | < Attended to logistical issues |
| | | pm | < Work on report |
| | | | < Departure for Entebbe, Uganda (MO) |
| | | | < Departed for Manhattan, Kansas, USA (DN) |

# APPENDIX I — PEOPLE SEEN

| NAME | Gender | POSITION |
|---|---|---|
| **Ethiopia:** | | |
| *Addis Ababa* | | |
| Alemu, T., Dr. | M | Assistant Professor, Department of Economics, University of Addis Ababa |
| Bonger, T., Dr. | M | Ethiopia Coordinator, IFPRI 2020 Vision Network for East Africa and Senior Research Fellow, Economic Development Research Institute (EDRI), Prime Minister's Office |
| Ketema, S., Dr. | M | Director General, Ethiopian Agricultural Research Organization (EARO) |
| Mekonnen, A., Dr. | M | Acting Head/Assistant Professor, Department of Economics, University of Addis Ababa |
| Negatu, W., Dr. | M | Director, Institute of Development Research (IDR) and Assistant Professor, Department of Economics, University of Addis Ababa |
| Tesfaye, Z., Mr. | M | Head Socio-Economics Research Department, Ethiopian Agricultural Research Organization (EARO) |
| Woldehanne, T., Mr. | M | Assistant Professor, Department of Economics, University of Addis Ababa |
| *Alemaya* | | |
| Arora, V., Dr. | M | Professor, Department of Agricultural Economics, Alemaya University |
| Hamito, D., Dr. | M | President, Alemaya University |
| Hawariat, S.W., Mr. | M | ARPT Coordinator/Lecturer in Agricultural Economics (part time), Alemaya University |
| Kasse, H., Mr. | M | Lecturer, Animal Science Department (formerly in Agricultural Economics), Alemaya University (on study leave) |
| Legesse, B., Mr. | M | Former Head/Lecturer, Department of Agricultural Economics, Alemaya University (on study leave) |
| **Kenya:** | | |
| *Egerton* | | |
| Wambua, T., Mr. | M | Lecturer, Department of Agricultural Economics and Business Management, Egerton University |
| Ouma, D.E., Dr. | M | Acting Head/Senior Lecturer, Department of Economics, Egerton University |
| *Nairobi* | | |
| Imungi, J.K., Dr. | M | Dean of Agriculture/Professor of Food Technology, University of Nairobi |
| Kimenye, L., Dr. | F | Senior Lecturer, Department of Agricultural Economics, University of Nairobi |
| Kimuyu, P., Dr. | M | Professor/Executive Director, Institute of Policy Analysis and Research (IPAR) |
| Kiragu, W., Ms. | F | Senior Program Assistant, Food Security, Rockefeller Foundation |
| Layakurwa, W., Dr. | M | Professor/Director of Training/Deputy Director, AERC |
| Lynam, J., Dr. | M | Associate Director, Food Security, Rockefeller Foundation |
| Mbatia, O.L., Dr. | M | Associate Professor, Department of Agricultural Economics, University of Nairobi |
| Mbogoh, S.G., Dr. | M | Associate Professor, Department of Agricultural Economics, University of Nairobi |

| NAME | Gender | POSITION |
|---|---|---|
| Masya, F., Mr. | M | Lecturer, Department of Economics, Kenyatta University |
| Mpungu, J., Ms. | F | M.A Program Manager, African Economic Research Consortium |
| Mule, H., Mr. | M | Chair of the Regional Advisory Committee of the IFPRI 2020 Vision Network for Easter Africa, Economist and International Consultant, and former Permanent Secretary to the Treasury, Government of Kenya |
| Munei, K., Dr. | M | Lecturer, Department of Agricultural Economics, University of Nairobi |
| Nganda, B.M., Dr. | M | Acting Head/Senior Lecturer, Department of Economics, University of Nairobi |
| Nyangito, H.O., Dr. | M | Kenya Coordinator, IFPRI 2020 Vision Network for East Africa and Senior Analyst, Kenya Institute for Public Policy Research and Analyis (KIPPRA) |
| Odhiambo, S., Dr. | M | Lecturer, Department of Economics, University of Nairobi |
| Oluoch-Kosura, W., Dr. | M | Head/Associate Professor, Department of Agricultural Economics, University of Nairobi |
| Omiti, J., Dr. | M | Acting Coordinator and Researcher Agriculture, Institute of Policy Analysis and Research (IPAR) |
| Ommeh, H.N., Dr. | F | Senior Lecturer, Department of Agricultural Economics, University of Nairobi |
| Otieno, L., Dr. | M | Senior Research Officer, Socioeconomics Unit, Kenya Agricultural Research Institute |
| Oyugi, L.A., Dr. | M | Director/Senior Lecturer, Institute for Human Resources Development, Jomo Kenyatta University of Agriculture and Technology |
| Patel, B.K., Dr. | F | Coordinator of FORUM Program |
| Salim, S.N., Dr. | M | Principal Scientist/Site Leader ICRISAT |
| **Malawi:** | | |
| *Bunda College* | | |
| Kachule, R.N., Mr. | M | Research Fellow, Agricultural Policy Research Unit (APRU) |
| Kanyama-Phiri, G., Dr. | M | Principal/Professor, Bunda College |
| Masangano, C.M., Dr. | M | Lecturer/Head of Rural Development Department |
| Mataya, C., Dr. | M | Malawi Coordinator, IFPRI 2020 Vision Network for East Africa and Head of Agricultural Policy Research Unit |
| Mtimuni, B.M., Dr. | F | Vice Principal/Associate Professor Home Economics/Human Nutrition |
| Phiri, M.A.R., Dr. | M | Lecturer, Rural Development Department, Bunda College |
| *Lilongwe* | | |
| Chulu, O., Mr. | M | Lecturer (part-time), Department of Rural Development, Bunda College and Director, Capacity Building Initiative, Lilongwe |
| Kumwenda, I., Mr. | M | National Coordinator, Malawi Agricultural Sector Investment Program (MASIP), Ministry of Agriculture and Irrigation |
| Makoko, M., Mr. | M | Program Officer, United Nations Development Program (UNDP) |
| Kambena, P.S., Dr. | M | Lecturer, Department of Economics, Chancellor College, Zomba |

| NAME | Gender | POSITION |
|---|---|---|
| **Mozambique:** | | |
| *Maputo* | | |
| Boughton, D., Dr. | M | Visiting Associate Professor (Michigan State University), Policy Analysis Unit, Ministry of Agriculture and Fisheries |
| Lichocha, F., Mr. | M | Dean of Faculty of Economics and Lecturer, Department of Business, Eduardo Mondlane University |
| Lopes, M.A., Dr. | F | Deputy Dean of Research, Faculty of Economics and Lecturer, Department of Economics, Eduardo Mondlane University |
| Marrule, H.F., Mr. | M | Policy Analyst, Policy Analysis Unit, Ministry of Agriculture and Rural Development |
| Masawe, P., Dr. | M | Cashew Breeder, National Agronomy Research Institute (INIA) |
| Mole, P.N., Dr. | M | Head of Economics Department, Eduardo Mondlane University |
| Mucavele, F.G., Dr. | M | Senior Lecturer, Agricultural Economics Section, Head of the Agricultural Economics Section, Faculty of Agronomy and Forestry Engineering, Eduardo Mondlane University |
| Sylvestre, M.M., Dr. | M | Deputy Dean of Teaching, Faculty of Economics and Lecturer, Department of Economics, Eduardo Mondlane University |
| Uaiene, R.N., Mr. | M | Director of the National Agronomy Research Institute (INIA) |
| **Rwanda:** | | |
| *Butare* | | |
| Butera, J.B., Dr. | M | Vice-Rector (Academic Affairs), National University of Rwanda |
| Jose, A.M., Dr. | M | Associate Professor, Department of Economics, National University of Rwanda |
| Lizy, M.A., Dr. | F | Assistant Professor, Department of Economics, National University of Rwanda |
| Nyangahungu, I., Mr. | M | Head of Planning, Monitoring, and Evaluation Department, Institut des Sciences Agronomique du Rwanda (ISAR) |
| Rutazibwa, G., Dr. | M | Professor/Dean of Dean of the Faculty of Economics, Social Sciences |
| Rwakimanzi, R., Ir. | M | Assistant Lecturer in Agricultural Economics, Faculty of Agriculture, National University of Rwanda |
| **South Africa:** | | |
| *Pretoria* | | |
| Hassan, R., Dr. | M | Professor, Department of Agricultural Economics and Extension, University of Pretoria |
| Kirsten, J.F., Dr. | M | Professor/Head of Department of Agricultural Economics and Extension, University of Pretoria |
| Makhura, M.T., Mr. | M | Lecturer, Department of Agricultural Economics and Extension, University of Pretoria |
| Poonyth, D., Dr. | M | Lecturer, Department of Agricultural Economics and Extension, University of Pretoria |

| NAME | Gender | POSITION |
|---|---|---|
| **Tanzania:** | | |
| *Dar es Salaam* | | |
| Likwelile, S.K., Dr. | M | Head/Senior Lecturer of Department of Economics, University of Dar es Salaam who was formerly associated with the Research on Poverty Alleviation (REPOA) program |
| Kimaro, M.P., Ms. | F | Research Assistant, Economic and Social Research Foundation (ERSF) |
| Musonda, F., Dr. | F | Senior Research Fellow, International Trade, ERSF |
| Mwinuka, A.W., Mr. | M | Finance Manager, ERSF |
| Ndulu, B.J.,Dr. | M | Senior Lead Specialist Macroeconomics, World Bank, Dar es Salaam/former Executive Director of AERC |
| *Morogoro* | | |
| Kashuliza, A., Dr. | M | Senior Lecturer (Agricultural Finance), Department of Agricultural Economics and Agribusiness, Sokoine University of Agriculture |
| Mdoe, N., Dr. | M | Acting Head/Senior Lecturer (Farm and Business Management), Department of Agricultural Economics and Agribusiness, Sokoine University of Agriculture |
| Nyange, D., Dr. | M | Lecturer (Price Analysis and Econometrics), Department of Agricultural Economics and Agribusiness, Sokoine University of Agriculture |
| Temu, A., Dr. | M | Associate Dean of Agriculture/Lecturer (Agricultural Marketing and Agribusiness Management), Department of Agricultural Economics and Agribusiness, Sokoine University of Agriculture |
| Turuka, F., Dr. | M | Senior Lecturer (Resource and Environmental Economics), Department of Agricultural Economics and Agribusiness, Sokoine University of Agriculture |
| Urio, N.A., Dr. | M | Dean of Agriculture, , Sokoine University of Agriculture |
| **Uganda:** | | |
| *Entebbe* | | |
| Akwang, A., Dr. | F | Research Officer, Planning, Monitoring and Evaluation Unit, National Agricultural Research Organization (NARO) |
| Minde, I., Dr. | M | Coordinator of The East and Central Africa Program for Agricultural Policy Analysis (ECAPAPA) Network |
| Tizikara, C., Dr. | M | Director Planning, Monitoring and Evaluation, NARO |
| *Kampala* | | |
| Bashaasha, B., Dr. | M | Acting Head/Lecturer, Department of Agricultural Economics and Agribusiness, Makerere University |
| Hyuha, T.S., Mrs. | F | Senior Lecturer, Department of Agricultural Economics and Agribusiness, Makerere University |
| Mbowa, S., Dr. | M | Lecturer, Department of Agricultural Economics andAgribusiness, Makerere University |
| Mugisha, R.X., Dr. | M | Director/Associate Professor, Institute of Statistics and Applied Economics and Agribusiness, Makerere University |

| NAME | Gender | POSITION |
|---|---|---|
| Nkonya, E., Dr. | M | Post Doctoral Scholar/Country Leader, Research Project on Policies for Improved Land Management, IFPRI |
| Opio, F., Dr. | M | Coordinator of the IFPRI 2020 Vision Network for East Africa |
| Okot, M., Dr. | M | Associate Dean, Faculty of Agriculture, Makerere University |
| Ssebuwufu, P.J., Prof. | M | Vice Chancellor, Makerere University |
| Ssemogerere, G., Dr. | F | Acting Head/Associate Professor, Institute of Economics, Makerere University |
| Tayebwa, B., Mr. | M | Lecturer, Department of Agricultural Economics and Agribusiness, Makerere University |
| Twinomukunzi, R., Ms. | F | Senior Assistant Registrar, School of Postgraduate Studies, Makerere University |
| **Zimbabwe:** | | |
| *Harare* | | |
| Chivinge, O.A., Dr. | M | Dean of Agriculture/Associate Professor of Crop Science, University of Zimbabwe |
| Davies, R.J., Dr. | M | Associate Professor/Head of Department of Economics, University of Zimbabwe |
| Katuala, J.G., Dr. | M | Program Team Leader, Central and Horn of Africa, The African Capacity Building Foundation (ACBF), Harare |
| Mabeza-Chimedza, R., Dr. | F | Senior Lecturer, Department of Agricultural Economics and Extension, University of Zimbabwe |
| Mano, R., Dr. | M | Lecturer, Department of Agricultural Economics and Extension, University of Zimbabwe |
| Ndorukwigira, A., Dr. | M | Program Manager, Research and Training Capacity Building, The African Capacity Building Foundation (ACBF), Harare |
| Rugube, L., Dr. | M | Lecturer, Department of Agricultural Economics and Extension, University of Zimbabwe |
| **Others:** | | |
| Anderson, J.R., Dr. | M | Portfolio Adviser, Rural Development Department, ESSD, World Bank, Washington, DC, USA |
| Fine, J.C., Mr. | M | Consultant and former Director AERC, Ottawa, Canada |
| Heinrich, G.M., Dr. | M | Project Manager, SADC/ICRISAT SMIP/Principal Scientist, Technology Exchange, ICRISAT, Bulawayo, Zimbabwe |
| Masters, W.A., Dr. | M | Associate Professor, Agricultural Economics, Purdue University, West Lafayette, USA and member of ECAPAPA Review Team |
| Simler, K., Dr. | M | Research Fellow, Food Consumption and Nutrition Division, IFPRI, Washington, DC., USA |
| Szanton, D.L., Dr. | M | Executive Directive, International Area Studies, University of California, Berkeley, California, USA |
| Weber, M., Dr. | M | Professor, Department of Agricultural Economics, Michigan State University, East Lansing, Michigan, USA |