

Land Administration Academic Education in Eastern Africa

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Key words: land administration, academic education, Eastern Africa, network

SUMMARY

The last five years has shown a remarkable growth of academic programs in land administration in Eastern Africa. In recognition of the role of land and land administration, various governments have supported training institutions in their countries to set up programmes in the land administration domain. Programs at Bachelor's level are being offered in Kenya, Ethiopia and Rwanda, and are expected to start in Tanzania. Ethiopia embarked on an MSc program in Land Administration, while universities in Uganda, Tanzania and Rwanda, are developing their postgraduate and/or master's curricula.

A comparative analysis of the Bachelor's programs offered at Eastern African Universities showed that the programs are quite similar in nature and are covering a broad spectrum of land administration subjects. The Master's and postgraduate curricula are more specialised, with different orientations in the different universities.

An important role in the development of land administration academic education in Eastern Africa played The Royal Institute of Technology (KTH) in Sweden, where many young graduates were trained who later became responsible for the development of the first bachelor's programs in Ethiopia, Kenya, Tanzania and Uganda. In 2010 these countries and their universities started the Eastern Africa Land Administration Academic Network (EALAAN) in order to support each other in the development of their curricula. In the meantime EALAAN has grown as new members joined or are expected to join soon. It has broadened its focus to include Post Graduate Degree, Master's programs and vocational training in land administration.

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1. INTRODUCTION

The last five-year period has shown a remarkable growth of academic programs in land administration in various Eastern African countries. In recognition of the role of land and land administration in development, various governments have supported training institutions in their countries to set up programmes that are relevant and up to date as far as land administration, operations and management of institutions is concerned. Land administration programs at Bachelor's level are being offered in Kenya, Ethiopia and Rwanda, and are expected to start in Tanzania. Ethiopia embarked on an MSc program in Land Administration, while universities in other countries, such as Uganda, Tanzania and Rwanda, are developing their postgraduate and/or master's curricula.

Responsible for growth of land administration academic education in Eastern Africa are to a large extent young graduates of the international Master of Science Programme in Real Estate Development and Financial Services- Specialisation in Land Management, at The Royal Institute of Technology (KTH) in Sweden. Funded by SIDA, KTH has been supporting the development of national Bachelor of Science Programmes in Land Administration at four universities in Eastern Africa: Bahir Dar University (Ethiopia), Kenya Polytechnic University College (Kenya), Ardhi University (Tanzania) and Makerere University (Uganda).

When in 2010 the SIDA capacity building program ended, the four universities involved decided to continue to work together in order to harmonise their BSc programs in Land Administration. This marked the beginning of a regional network of universities in Eastern Africa offering academic education in Land Administration: the Eastern Africa Land Administration Academic Network (EALAAAN). In the meantime other universities in the region started academic programs in Land Administration such as INES Ruhengeri in Rwanda and the National University Rwanda (NUR), and Woldia University in Ethiopia.

The paper will start with an overview of the main land administration academic programs offered by universities in Eastern Africa: Ethiopia, Kenya, Rwanda, Tanzania and Uganda. These country cases will be followed by a comparative analysis of their academic programs. The paper concludes with the role of the Eastern Africa Land Administration Academic Network in fostering the growth of land administration education and research.

2. COUNTRY CASE ETHIOPIA

2.1 Introduction

Ethiopia is an agrarian country located in the horn of Africa. It is a land locked country with a total area of about 1.128 million kilo meter square. Ethiopia with high plateau having central mountain range divided by the Great Rift Valley enjoys a tropical monsoon climate with topographic induced variation. It is the source of Blue Nile. According to the 2007 Population and Housing Census, Ethiopia has an estimated total population of 74 million, with 84% of the total population living in the rural areas.

Several government policies and strategies had been implemented in the past to solve the problems related to land and land tenure. However, past efforts to manage the land and solve the problems of land degradation did not bring about significant results. Many people argued that the problem of land degradation was aggravated by lack of proper land use and administration policies. Thus, the Federal Democratic Republic of Ethiopia enacted the Rural Land Administration Proclamation (1997) which made provision for the issuance of land administration and use law by each regional state. After the enactment of this proclamation at Federal level, Amhara National Regional State (ANRS) issued a proclamation in 2000 to determine the administration and use of the rural land in the region. The objectives of the land administration and land use proclamation are directed towards enabling the peasant to work for sustainable development and tenure security.

To implement the land administration and land use policy and in order to guide, adjust and follow up the implementation of related policies and proclamations, ANRS established the Environmental Protection, Land Administration & Use Authority (EPLAUA) in 2000.

2.2 The need for land administration education in Ethiopia

Commencing the implementation of land administration system and analysing the activities involved, EPLAUA realized that the shortage of trained manpower in the field of land administration is one of the critical constraints that should be addressed immediately. Experts are needed for the work with real property-related topics in rural as well as urban areas, including an expected private sector. Qualified manpower is mainly needed in the fields of;

- Legal system related to land and tenure security;
- Cadastral survey and land registration
- Land information system
- Real property registration
- Valuation of land related resources
- Development of infrastructure and Governance of commons.

EPLAUA, by now changed into Bureau of Environmental Protection, Land Administration and Use (BoEPLAU), approached Bahir Dar University (BDU) to discuss the possibility of starting academic education in Land Administration.

2.3 Start of land administration education at Bahir Dar University

2.3.1 Capacity building at KTH

In order to have international experience in land administration, BDU contracted the Royal Institute of Technology (KTH) in Stockholm, Sweden. The collaboration programme with KTH started in 2004 within the on-going SIDA Amhara Rural Development Programme (SARDP). The aim of this collaboration was to educate teachers at BDU, with the clear intention to start an education programme in Land Administration. The collaboration started by upgrading some of the existing staff to Master's level. For the intakes from 2004 up to 2008, BDU staffs have been admitted for the MSc in Land Administration programme at KTH. Since 2006 BDU staffs have also attended the MSc in Geodesy and Geomatics programme at KTH. In addition, KTH has trained staff from EPLAUA.

2.3.2 Start of the Bachelor of Science and Master of Science programs

A curriculum for a 4 year Bachelor of Science (BSc) programme in Land Administration was developed jointly by BDU, KTH and EPLAUA and BDU started a four year BSc education programme in Land Administration for regular students in 2006 under the Faculty of Law. In 2012 the BDU started MSc education in Land Administration and Management.

2.4 Students and staff

2.4.1 Bachelor's program

BDU started in September 2006 with the first intake of 60 students of which 42 have graduated in July 2010. 54 and 52 students graduated in July 2011 and 2012 respectively from the second and third batch students. The intake of 2009 was 130 students and of whom 113 students have completed their third year study. The intake of 2010 was 60 students of which 52 completed their second year study and the intake of 2011 was 59 students of which 55 students completed their first year study. The intake of 2012 is 120 students. The total number of students in the regular programmes is now 340 excluding graduated students.

The B.Sc. programme in Land Administration is also provided as distance education and evening programme for students who cannot attend the regular classes. The distance programme and the extension (evening) programme started in October 2008.

2.4.2 The Master of Science program

It has also 10 first year MSc students who are from both the rural and urban land administration sector.

2.4.3 Staffing

The land administration program is offered by the Institute for Land Administration (ILA) of BDU. The institute delivers multidisciplinary courses classified into four main tracks, namely Surveying, Law, Economics and Land Management tracks. The staff members, therefore, have the different background fields of Economics, Civil Engineering, Law, Geography, GIS, Geodesy, Surveying, Urban Planning, Urban Management and Natural Resources to fulfil the diverse requirement of these courses.

Active Staffs

- 3 Assistant Professors,
- 7 Lecturers with MSc in Land Administration, 2 Lecturers with MSc in Geodesy and Geoinformatics, 2 lecturers with MSc in GIS and 1 Lecturer with MA in Urban Management, 1 Lecturer with MSc in Urban Design
- 2 Surveying Technical Assistants
- 2 IT Technical Assistants

Staff Members under Study

- Following PhD studies: 3 PhD students in Land Administration in Sweden, 1 PhD student in GIS at ITC of the Netherlands, 1 PhD student in Land Law in Melbourne University of Australia and 1 PhD student in the area of Informal Settlements in the UNISA (University of South Africa) distance programme
- Following MSc studies: 2 MSc students in Geodesy and Geomatics at KTH, Sweden, and 3 MSc students in Geodesy at Addis Ababa University, Ethiopia

2.5 Facilities

BDU and ILA emphasize on the students' learning process, combining theoretical knowledge with practical skills. Modern surveying equipment has been purchased and is available for up-to-date practical training. The computer laboratory rooms are equipped with ample workstations. Commercial GIS and imaging software are used in the Remote Sensing, Photogrammetry & Digital Mapping and GIS courses. A digital photogrammetric studio with 15 3D monitor workstations has been established recently. Several minibuses and land cruisers are available for fieldwork. The construction of the new campus, which ILA will share with the School of Law, is in its final stage and currently ILA is carrying out its activities in this campus.

2.6 Support and partnership

Since November 2007 KTH has been partner in the on-going "Establishment of the Institute of Land Administration, Bahir Dar University" project. The collaboration has been possible thanks to the support from the Swedish Government through SIDA. Inside the country, the Institute signed MoU with Bureau of Environmental Protection, Land Administration and Use (BoEPLAU) of ANRS, Bureau of Industry and Urban Development (BoIUD) of ANRS and

Bahir Dar Municipality. In addition to this, ILA has signed MoU with Aalto University of Finland and INES of Rwanda. ILA is also an active participant of the Eastern African Land Administration Academic Network (EALAAN).

Woldia University, which is one of the nine public Universities established by the Ethiopian government in September 2011, started a similar BSc education programme Land Administration under the Faculty of Agriculture in October 2012 with 60 first year students.

2.7 Challenges

It has been mentioned previously that ILA has been carrying out staff capacity development activity at Masters and PhD level inside the country and through sending staff members abroad. However, staff turnover is still the major challenge. The main reason is that the salary of lecturers and Professors in the University is low compared to the amount of salary outside the University system. As a result, there is out flow of staff members to secure good salary in NGOs and private organizations.

3. COUNTRY CASE KENYA

3.1 Introduction

Land is critical to the economic, social and cultural development of a country. In Kenya, land issues are emotive and have dominated the debate since independence in 1963. Indeed, the struggle for political independence from the colonial rule was closely linked to the fight for land rights. As a nation, Kenya therefore recognized at an early stage, the important role of experts in the acquisition, development, valuation, management and disposal of land.

The approaches of Land Administration processes and outputs have evolved with time. The same can be said of the training of landed professionals in Kenya. For example, the first courses addressing the issues of land management were launched in 1956 at the then Royal Technical College of East Africa (later the University of Nairobi) and was covered by two distinct schools:(i) The Department of Surveying and Photogrammetry in the Faculty of Engineering, and (ii) The Department of Land Development in the Faculty of Architecture, Design and Development. These two departments have generally been the main source of land management graduates. While the Department of Land Development concentrated more on the Valuation and Management of land, the Department of Surveying and Photogrammetry tended to be more technical but with a stronger leaning to cadastral surveying.

3.2 The need for Land Administration in Kenya

Land Administration for sustainable development should be consistent with the historical, economic and social background of a country. This calls for a multi – disciplinary approach to teaching in core areas, with incorporation of modern Land Information Systems. The

education and training in the land sector in Kenya has not critically responded to the needs of the country and has continued to promote specializations at the basic university level. Land Administration as a discipline has largely been ignored in these institutions. This trend is worrying, particularly in Africa, where there is still a considerable need for studies in land management covering land rights and land tenure systems, economics of land use, land laws, surveying and physical planning in a holistic way.

3.3 Start and history development of the Land Administration Course

3.3.1 Capacity building at KTH

In recognition of the role of land and land administration in development, the government of Kenya responded by initiating post-graduate training programme at the Royal Institute of Technology (KTH) in Stockholm (Sweden) to prepare a pool of staff who would come back to assist in launching the Bachelors programme in Nairobi. The first batch of four students started their master's programme in Land Management at the KTH in September 2006. In subsequent years (i.e. 2007 and 2008) two more batches of five students (each) also proceeded to the KTH for the Land Management programme. In total, Kenya trained fourteen students at the KTH between 2006 and 2009 before the programme was discontinued. Out of the fourteen students thirteen completed their course and graduated with a master's degree in Land Management and only one student has not graduated up to now.

3.3.2 Development of the first curriculum

The first graduates of the Land Management programme drafted the first curriculum of Land Administration in 2007. It consisted of the following knowledge tracks: the Land Survey Track, the Economics Track, the Law Track and the Land Administration Track. Drafts were adopted by the government of Kenya and discussed in subsequent East Africa Land Administration Lecturers meetings in Stockholm. Each country was expected to retain common areas within all the Land Administration programmes for ease of transfer of credit and exchange of lecturers.

3.4 Programs, students and staff

3.4.1 BSc Programme in land administration

In Kenya, a five year Bachelor's Degree programme in Land Administration was launched at the Kenya Polytechnic University College in January 2010. Currently, the course has three different years of students distributed as follows: First Year 23 students, Second Year 15 students, and Third Year 4 students. The low enrolment in third year was due to lack of marketing of the course at the time and many students opted to migrate to other well established courses. However, after better marketing of the course, the numbers increased and currently, there are 40 students waiting to join the programme in January 2013.

3.4.2 Towards an MSc Programme in land administration

The department is currently in the process of launching a master's programme in September 2013 and the draft curriculum has been forwarded to the University Senate for consideration.

3.4.3 Staffing

The staffing situation for the programme is inadequate at the moment. Currently, only two members of staff are on the permanent basis while the rest are part time. The university has however advertised for more positions for Lecturers in the Land Administration but there are not many people qualified in this area. The other major problem is the availability of more lucrative jobs in the private sector in Kenya which provide better payment than the universities.

3.4.4 Staff development and PhD training

The department is currently running PhD (by thesis) for members of staff as part of staff development. Currently, one of the staff members is at the stage of defence of the PhD thesis while two other members are writing proposals. So far, one of the former graduates of the KTH Land Management programme is currently finalizing his PhD in Land Administration at Otago University in New Zealand.

3.5 Challenges

Currently, there are two main challenges that militate against efficient implementation of the land administration programmes in Kenya. These are lack of qualified staff and competition from the private sector. In Kenya for example, it is becoming difficult to employ and retain staff qualified in land administration due to the high payments and better facilities offered by the private sector and the para-statal organizations. One other challenge is the migration of staff to greener pastures out of the country as Kenya has a pool of well trained personnel but poorly paid. The government has recently set up a Parliamentary Committee on Remuneration and Salaries of public servants in Kenya and we hope that this committee will recommend competitive terms for Lecturers.

4. COUNTRY CASE RWANDA

4.1 Country need for land administration education

Rwanda has a young and fast growing population estimated at 10, 5 million. With a land size area of 26,338 sq. km, Rwanda is the most densely populated country in the Sub-Sahara Africa. As much as 80% of Rwandans depend on land for survival. The high population density exerts many sorts of social and environmental pressures on land. On social issues, land disputes and conflict dominate cases received at the Office of Ombudsman and courts. Countrywide, about 90% of court cases are related to land.

A series of policies, laws and regulations aimed to reform land tenure have been passed by the Government of Rwanda (GoR) since 1999 in order to alleviate the land problems. Initiatives such as the land policy and the organic land law (2004) drove the concept of new visions and models for designing programs aimed at addressing the problems of tenure and land use. The land reform program was implemented under the Land Tenure Regularisation (LTR) project, through Systematic Land Registration (SLR). The goal of this program is to confer tenure security and minimise land disputes, stimulate land markets, support land use planning and sustainable development.

Amidst the challenges of high population and land scarcity the Government of Rwanda (GoR) has made significant progress since the land reforms program started. Countrywide, the Ministry of Natural Resources (MINIRENA) completed demarcation and adjudication in June 2012, and anticipates issuing titles in all districts by December 2013. The recordation and availability of countrywide land information puts Rwanda in a position to be the most prepared country in Africa to meet future challenges regarding land administration. However, despite the significant progress in land reforms, Rwanda now faces new challenges associated with maintaining and updating of land information; need for qualified and local workforce; equitable access, control and use of land, land use planning, land related conflicts, among others.

4.2 Land administration education at INES-Ruhengeri

4.2.1 Start and development of the land administration curriculum

INES-Ruhengeri is a private higher learning institution based in Musanze District, Northern Province in Rwanda. Created on 17 November 2003, it was motivated by a triple objective: build hope of the despaired society due to war and genocide, be an instrument of unity and reconciliation and contribute to sustainable development of the country and the region.

To respond to the challenges of skills gap in addressing land issues, INES instituted a department of Land Survey in August 2010. But it was later on realized that land surveyors alone are not enough to address the issues related to the social, environmental and economic aspects related to land. Another group of professionals were needed: land administrators.

In October 2011 INES-Ruhengeri embarked on the process of establishing a four year BSc course in Land Administration and Management (LAM). During this time senior lecturers from the Kenya Polytechnic University College (KPUC) were invited to INES. KPUC already offered a BSc in Land Administration and could provide a wide range expertise and advice in the development of the BSc program in Rwanda. A series of meetings were further held with the Rwanda Natural Resources Authority (RNRA) - Land and Mapping Department and the Swedish International Development Agency (SIDA). An international stakeholders' conference was conducted in December 2011 to validate and critique the curriculum: more than 80 institutions were represented. The curriculum received further improvements by academic experts in the land administration profession from Nairobi University and INES-

Ruhengeri, the UNU School of Land Administration Studies (ITC- University of Twente) and Dutch Kadaster (Netherlands). Finally, the curriculum was presented at the Regional Workshop for Eastern Africa Land Administration Academic Network (EALAAN) in Kampala, Uganda in July 2012 for further critique and approval. The department of LAM - which is the first of its kind in Rwanda – opened its doors in September 2012 to offer a BSc in Land Administration and Management.

4.2.3. Students and staff

The Program of Land Administration and Management consist of 40 first year students enrolled in September 2012. The total Number of staff: two. One specialized in land administration (cadastre and tenure systems) and one on land use & planning. There is collaboration through staff sharing with other departments such as Land Survey.

4.2.4. Related programs at INES

A sister department of Land Survey also exists, where the following diploma and bachelor's programs are offered: Bachelor degree in land Survey - 5 Years programme aiming at generating professional surveyors who ready to participate in land related projects elaboration and implementation; Advanced Diploma - 3 Years program aiming at generating field survey technicians to be deployed directly on the field; Certificate in land Survey - a two years programme aims at generating professional surveyors who are ready to participate in land related projects elaboration and implementation.

4.3 Support and partnerships

Memorandums of Understandings (MoU's) and Memberships in relation to Land Administration education have been signed with Leiden University - Netherlands (MoU); Bahir Dar University – Ethiopia (MoU); and FIG Academic Membership. A MoU with ITC (University of Twente, Netherlands) is in the formulation process. INES joined the East Africa Land Administration Academic Network (EALAAN) in 2012.

4.4 Challenges and ambitions

A main challenge in the Land Administration and Management department is the shortage of staff. Currently, vacancy announcements have been circulated within Rwanda, within the Eastern Africa Land Administration Network and through the FIG website. Recruitment process is on-going.

A future ambition of the Land Administration and Management Education program is to expand the program and include evening and weekend classes, MSc programs, and research. The department is putting importance on networking and collaboration with partners in the Land Administration domain within and outside of Rwanda. Participation in the Eastern Africa Land Administration Academic Network is seen one of the ways to achieve this.

5. COUNTRY CASE TANZANIA

5.1 Land administration academic education

5.1.1. Ardhi University and land administration

Ardhi University (ARU) in Dar es Salaam has a respected reputation when it comes to land administration issues in Tanzania and in the Eastern Africa region. The history of ARU dates back to 1956 when its earliest predecessor was established as the Surveying Training School offering land surveying courses at technician level. In 1974, Ardhi Institute was made a parastatal organization and gradually the range of courses was broadened. In 1996 the Ardhi Institute became a constituent College of the University of Dar es Salaam and became known under the name University College of Lands and Architectural Studies (UCLAS). In March 2007 UCLAS ceased to exist and Ardhi University has been approved as an independent University.

Since 2009 ARU and the UNU School of Land Administration Studies have been working together on capacity development in Land Administration to fulfil the severe need for capacity building in Land Administration in Eastern Africa. This has resulted in the creation of a Land Administration Unit (LAU) to coordinate education, training and research in Land Administration at ARU. The following institutes contribute to the LAU: School of Real Estate Studies, School of Urban and Regional Planning, School of Geo-spatial Sciences and Technology and the Institute of Human Settlement Studies (IHSS). Ardhi University been identified as an Academic Partner for the UNU-ITC School of LAS for the Eastern Africa region.

5.1.2. Bachelor program in land administration

ARU has developed a Bachelor course on Land Administration in cooperation with the three other universities who took part in the SIDA supported training in Land Management at KTH. The curriculum has been developed together with Bahir Dar University (Ethiopia), Kenya Polytechnic University College (Kenya) and Makerere University (Uganda).

5.1.3. Post Graduate Degree program in land administration

A proposal for a Joint Postgraduate course (PGD) in Land Administration has been developed together with the UNU School of Land Administration Studies. This course is intended to become an MSc in Land Administration after some years when research capacity has been developed. The development of a Post Graduate Diploma course at ARU would fit neatly to the BSc program being developed in support of KTH as it creates a regional option for postgraduate studies that follows on the BSc course. Although curricula for land administration education at BSc and Post Graduate Degree level are being developed at ARU, these courses have not yet started due to various reasons.

5.2 Support and partnerships

Staff members from Ardhi University are active contributors to the Eastern Africa Land Administration Academic network. Ardhi University has played an important role in the development a Diploma course in Land Administration at the National University of Rwanda (NUR).

6. COUNTRY CASE UGANDA

6.1 Country need for land administration education

Uganda is predominantly an agricultural country with more than 80% of the population living in rural areas. Therefore, the majority of the population derive their livelihood from land by growing crops for home consumption or as a source of income. Land matters are very sensitive because they do not only affect people's livelihoods but also in many cases touch on people's cultural beliefs.

In 1995, the Ugandan Parliament passed a new constitution that among others, vested the land in the hands of Ugandans, with a key phrase "Land belongs to the people". The constitution further provided for decentralisation of land management functions. Consequently the Local Government Act (1997) and the Land Act (1998) empowered local governments to manage land under their jurisdictions. The land institutions at local government level introduced by the constitution and the above Acts are: 1) the District Land Board, 2) the District Land Office, 3) the Land Tribunal, 4) the office of the Recorder and 5) the Area Land Committee (at sub county level).

There is a requirement in the Land Act (1998) for members of the above institutions to have technical knowledge and skills in land matters at various levels. This requirement has not been practically realised due to lack of professionals in land administration.

The Ministry of Lands Housing and Urban Development is equally in shortage of professional staff in land administration. The key positions of Land Registrars, Land Officers are occupied by lawyers and social scientists. These professionals lack adequate grounding in land administration and hence may encounter a lot of difficulties in their work. Other institutions in need of land administrators include the Uganda Investment Authority, Land related NGOs, banks and real estate companies.

In Uganda, there is no institution that offers training in land administration and this has affected the country's capacity to handle land matters

6.2 Historical development of land administration in Uganda

Land Administration in Uganda has been shaped to a large extent by the power and land sharing agreements signed between the colonialists and the local kingdoms. The notable of them was the Buganda Agreement of 1900, where land was divided between the king of

Buganda, his subjects, religious/academic institutions and the colonial government. The colonial government used land as a tool to ease its own administration and winning influence over the colony. When Uganda got independence 1962, the new government only assumed the position of the colonial government and nothing changed in terms of land policies for empowering users of land. For example, the Public Lands Act 1967 upheld the status quo and recognised the freehold tenure, the Leasehold tenure and the Mailo tenure. In 1975, the new dictatorship government headed by President Idd Amin, under the Land Reform Decree abolished all tenure systems and converted them into leasehold. However, operationalization of the decree met a lot of resistance and technical problems. The situation was reversed in 1995 when a new constitution was passed.

The Ugandan constitution of 1995 recognises the following four types of land tenure systems: 1) freehold tenure – where land is held in perpetuity and was based on the British fee simple; 2) leasehold tenure - where land is held for a specified period of time subject to certain conditions, 3) Mailo tenure – where land is held in perpetuity but subject to the interest of tenants (bibanja holders); tenants are protected by the law as long as they are able to pay a token (not commercial in nature) to the landlord, and 4) customary tenure – where land is held in accordance with the customs of the area; most of the land in Uganda is under this tenure system.

6.3 Land administration education

6.3.1 Masters program

The Department of Geomatics and Land Management of Makerere University (MKU) is currently developing a Masters level course in Land Administration. The Land Administration programme seeks to contribute towards addressing problems in the land sector by producing highly trained Land administrators in large numbers. The Land Administrators will take duties of land administrators, which are currently being handled by lawyers, surveyors and social scientists. The Programme will be offered initially at Masters Level to target the various officers who have been practicing without the required qualifications. The course is intended to start in 2013. Initially MKU was developing a BSc curriculum in Land Administration; however a Master's program in Land Administration fitted better the university's portfolio and the need of the country.

6.3.2 Students and staff

The target students are professionals working in the Ministry of Lands Housing and Urban Development as well as in local governments. Currently, there are 112 local governments at district level and over 900 local governments at sub-county level. For admission to the programme, prospective students will meet the general requirements of MKU and have qualifications and experience in any land related field such as land surveying, valuation, real estate management and land law.

The programme will essentially be run by staff from the Department of Geomatics and Land Management. Furthermore, a number of staff acquired Land Administration qualifications from KTH in Sweden through SIDA supported programme. Although most of these are employed by the industry, they will be co-opted as part-time lecturers.

6.4. Support and partnerships

All Masters Programmes at MKU are private programmes. The Land Administration programme will be funded through fees paid by private students. The Programme will benefit from our current partnerships with the Eastern Africa Land Administration Academic Network, KTH and UNU School of Land Administration Studies (University of Twente). The Ministry of Land Housing and Urban Development will also be a key partner.

7. LAND ADMINISTRATION CURRICULA - COMPARISONS OF PROGRAMS

7.1 Overview and comparison of programs

The aim of this comparative analysis is to give an overview of subjects offered within the Land Administration BSc, MSc and PGD programmes in Eastern African Universities. Therefore the Land Administration curricula were examined based on the subjects offered. Areas of emphasis or focus within curricula are assessed and compared. Curricula from Ethiopia, Kenya, Rwanda, Uganda and Tanzania are considered in this study. This comparative analysis builds on an earlier comparative analysis of the curricula carried out by Prof Hans Mattson of KTH, Sweden – in 2010.

7.2. Methodology

For the comparative analysis subjects have been organised in ‘tracks’, or main disciplines. The tracks system is borrowed from the curricula of Bahir Dar University (BDU) and INES-Ruhengeri University which categorize their subjects in to five tracks: basic track, surveying/geomatics track, economics track, and law and land administration tracks. For the purpose of the comparative analysis, three additional tracks are added i.e. property formation and registration, land information system and Thesis tracks.

The comparison is made with the help of an MS Excel table. All proposed subjects from all the curricula are sorted under the eight tracks. In this way, check is made whether every track is covered and then to what extent. This helped us derive the areas of focus/emphasis for each curriculum.

7.3. Description of tracks

The following main disciplines or tracks can be recognized in the land administration programs:

TS number – Session title e.g. TS 1A – Standards, and paper no 14/21
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1. *Basic track* contains subjects (mainly basic courses e.g. mathematics, philosophy, anthropology, computer skills, statistics, etc.) that are needed for the understanding of other subjects in the program.
2. *Law track* for understanding general legal rules as well as legal rules related to ownership, lease and mortgage transactions e.g. property law, land law, civil and public law, conveyance law.
3. *Property formation and registration track*: for the understanding of subdivision, amalgamation, real allotment, definition of property boundaries; surveying and land registration. Registration part is related to land, cadastre and property registers.
4. *Surveying track* for subjects related to measurement of areas, e.g. for subdivision work but also map production used for planning documents.
5. *Land use; land management or advanced land administration track*: for the understanding of rules related to changes of land use. This track contains courses for changing entire complexes of land related rights with the support of complicated procedures, e.g. land policies, land consolidation, land readjustment in urban areas, irrigation projects related to land consolidation, but also for the understanding of projects and procedures related to development of rights for infrastructure and for creation and management of common rights
6. *Economic track* for management of valuation for tax assessment, expropriation etc. (supporting all arrows in fig. 1)
7. *Land Information System (LIS) track*: LIS systems contain attribute data about property but also information about cadastral maps. This has major focus on IT and database related courses. It is important to note that this is not the same as GIS.
8. *Thesis track* is related to writing the BSc thesis or projects

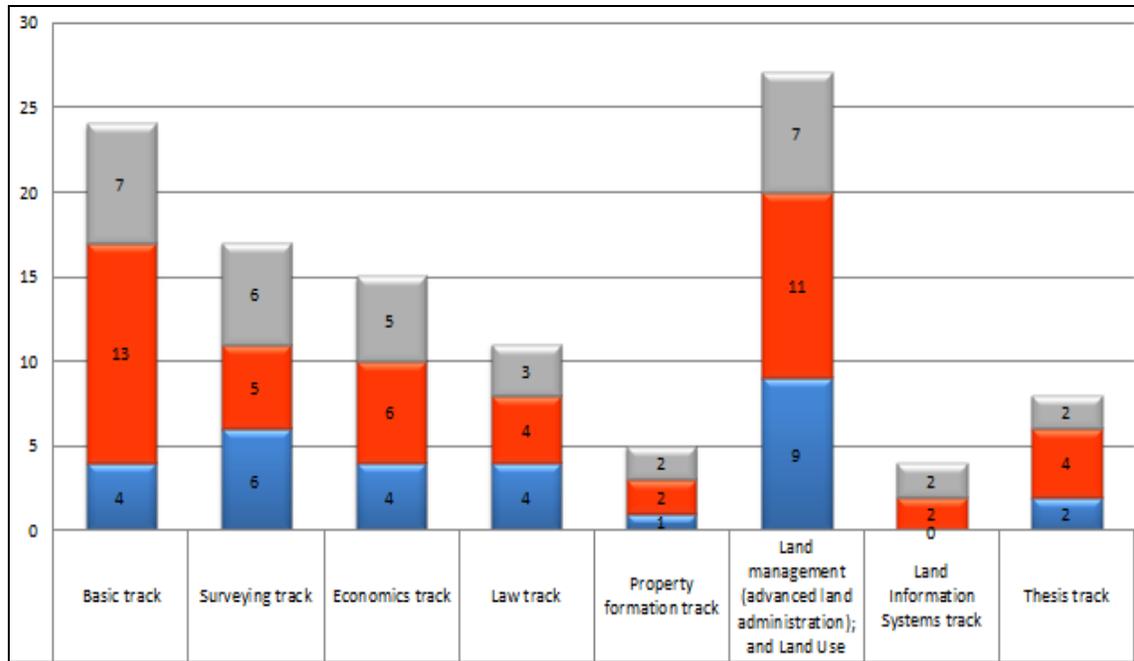
In reality it is difficult to look into the actual content of the proposed courses. For this reason it is remarked that it was difficult to classify some subjects. For example, a ‘Cadastre and Registration’ course falls within the ‘Property formation’ and ‘Surveying’ tracks. In reality, some subjects falling in to two categories probably do not change the general picture.

7.4 Results

The following sections present the results of the comparative analysis. The results are divided into two:

- 1) Overview of BSc programs
- 2) Overview of MSc and PGD programs

Figure 1: Overview of distribution of subject areas in the BSc Programs from Ethiopia (BDU), Kenya (KPUC) and Rwanda (INES).



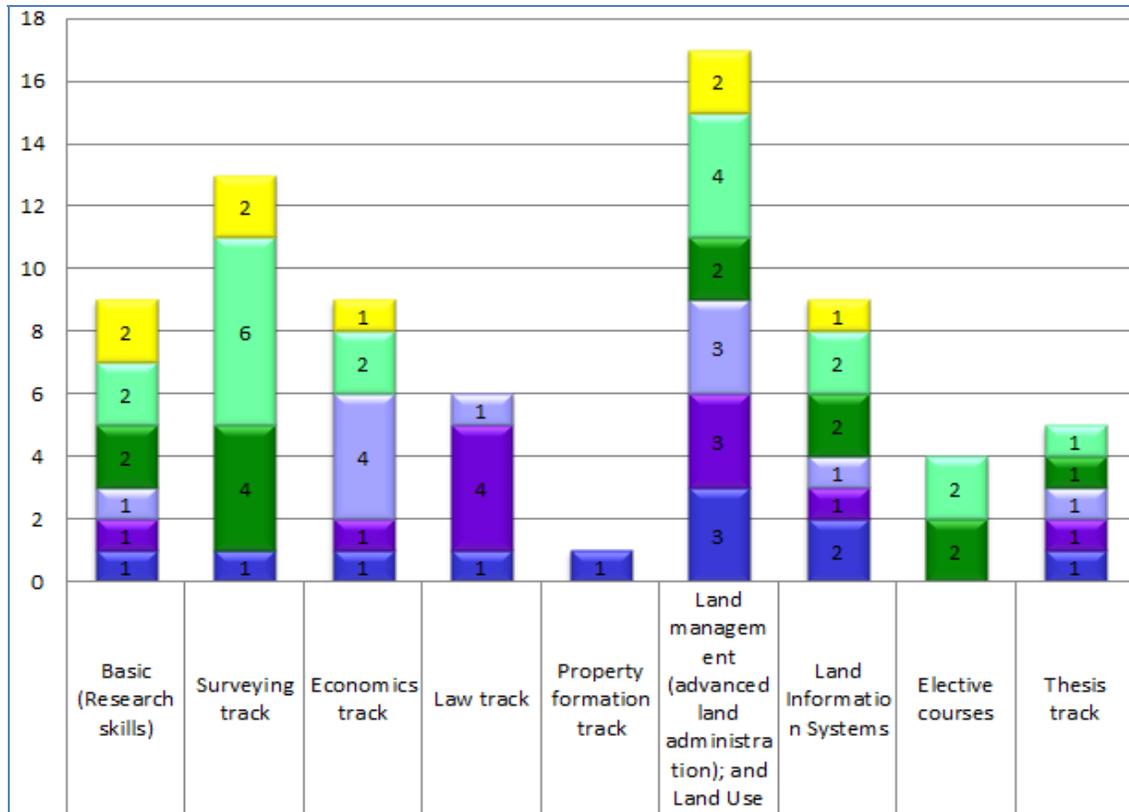
**Numbers in the tables represent the number of subjects offered within each 'track'



Results of the comparative analysis from three universities show that the distribution of courses within the given tracks is relatively identical between the universities. According to Figure 1, the more or less equal distribution of subjects is to be expected because the curricula of BDU and KPUC were developed about the same time with the assistance of KTH Sweden. INES' curriculum was developed a little later (2011-12) in close collaboration with BDU and KPUC. Results from Ardhi University (ARU) are missing as the curriculum is still under development.

While the programmes at BDU and INES run for four years, the BSc program at KPUC lasts five years. The emphasis on the Basic, Land Management and Thesis tracks at KPCU may explain the difference in the program duration. All universities offer the BSc program on full-time basis.

Figure 2: Overview of distribution of subject areas in the Masters and Post Graduate Programs from Ethiopia, Uganda and Rwanda:



**Numbers in the tables represent the number of subjects offered within each 'track'

■ ARU-PGD: Curriculum in Development
■ NUR-PGD (Post Graduate Diploma)
■ MKU-Focus: MSc Courses&Project
■ MKU-Focus: MSc Research
■ Kenya Polytechnic - PGD (Post Graduate Diploma)
■ BDU-Focus: Real Property Valuation
■ BDU-Focus: Real Property Law
■ BDU-Focus: Land Information Mgt Systems

Figure 2 should be read as follows:

- The shades of BLUE refer to MSc program at Bahir Dar University (BDU).
 - Bahir Dar has three options in its MSc program, i.e. focusing on
 - i. Land Information Management
 - ii. Real property law and
 - iii. Real property valuation
- Shades of GREEN refer to MSc program at Makerere University (MKU).

- MKU has two options in its MSc program
 - i. MSc including research and
 - ii. MSc without Research – mainly courses and project oriented.
- Yellow represents PGD program at National University of Rwanda (NUR)

Figure 2 presents results of three out of five universities: KPCU is in the process of developing a master's curriculum (MSc) and ARU in the process of developing a PGD curriculum. They are therefore excluded in this analysis. BDU has started its MSc program in early 2013; MKU and NUR anticipate starting their MSc or PGD programs later in 2013.

Concerning the MSc and PGD programs specialisation is taking place. BDU pays more emphasis on law, economics and land information management – depending on the specialization option. MKU and NUR pay more emphasis on surveying and land management tracks, and no attention to law and property formation tracks. MKU is particularly very strongly focused on the surveying tracks. NUR lacks representation in the Thesis track.

In summary it can be observed that the bachelor's programs in land administration at BDU, KPCU and INES are quite similar in nature and are covering a broad spectrum of land administration subjects. The MSc and PGD programs, however, tend to be more specialised and with different orientations in the different universities.

8. THE EASTERN AFRICA LAND ADMINISTRATION ACADEMIC NETWORK

Funded by SIDA, KTH has been supporting the development of national Bachelor of Science Programmes in Land Administration at four universities in Eastern Africa: Bahir Dar University (Ethiopia), Kenya Polytechnic University College (Kenya), Ardhi University (Tanzania) and Makerere University (Uganda). When in 2010 the SIDA capacity building program ended, the four universities involved decided to continue to work together in order to harmonise their BSc programs. This marked the beginning of a regional network of universities in Eastern Africa offering academic education in Land Administration: the Eastern Africa Land Administration Academic Network (EALAAN).

In the meantime EALAAN has grown and now includes also INES Ruhengeri, Rwanda, the National University (NUR) of Rwanda, and the Regional Center for Mapping of Resources for Development (RCMRD) in Kenya. Other countries that are expected to join the network soon are South Sudan, Burundi, Somalia and Eritrea. The network has broadened its focus to include Post Graduate Diploma (PGD), MSc programs and vocational training in land administration.

The members of the Eastern Africa Land Administration Academic Network (EALAAN) meet each other once a year during a two day workshop. Each year another university takes the lead in the network and is responsible for organising the workshop. The first workshop was organised in Nairobi by KPUC (2010), followed by Ethiopia, BDU, in 2011 and in

Kampala by MKU in 2012. The network aims to support its members in the further development of their curricula, exchange of specialist staff and sharing of educational resources. It is further working on a regional scientific Journal and the development of a Compendium of Land Administration Practice in Eastern Africa.

With the growth of the network, both in number of countries and in scope of activities, formalisation of the network is one of the main issues for the next workshop meeting being organised by INES-Ruhengeri and the NUR in Rwanda in July 2013.

The Eastern Africa Land Administration Academic Network is has strong links with European Universities in particular KTH in Sweden, the UNU School of Land Administration Studies at ITC (the Netherlands) and Munich Technical University (TUM) in Germany. Other European universities with close relations with Eastern African universities include Aalborg (Denmark) and Aalto (Finland) (see figure 3).

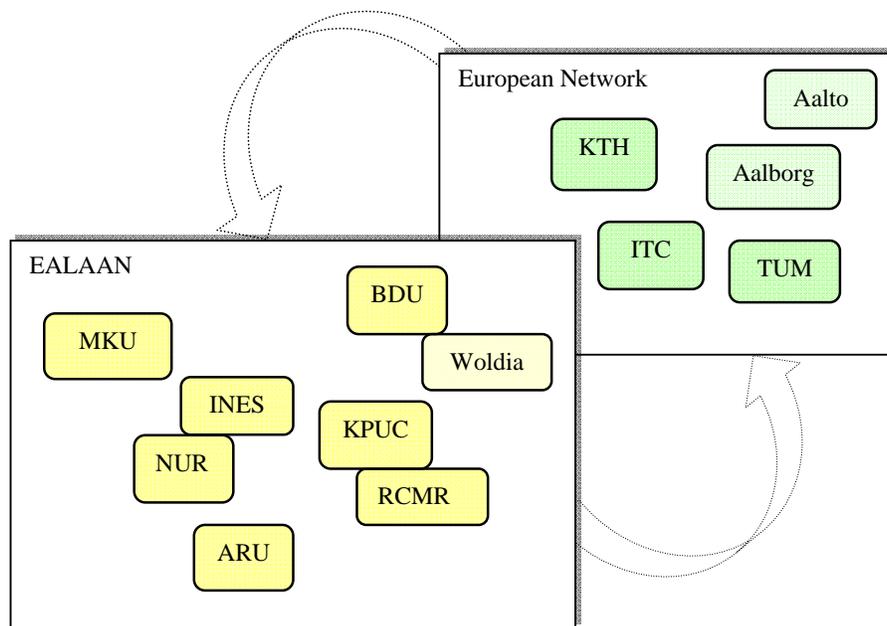


Figure 3 The Eastern Africa Land Administration Network (EALAAN) and its relation with a network of European universities in Land Administration.

BIOGRAPHICAL NOTES

Liza Groenendijk is lecturer at the UNU School for Land Administration Studies, of the Faculty of Geo-information Science and Earth Observation (ITC) of the University of Twente, Enschede, The Netherlands. She holds a degree in Tropical Forestry from Wageningen University, The Netherlands. She is currently working on her PhD research concerning student's professional knowledge in land administration academic education. Since October 2006 she is a member of FIG Commission 2 - on Professional Education.

Monica Lengoiboni is a lecturer in Land Administration studies at INES-Ruhengeri in Rwanda. She holds a PhD degree in land administration from ITC in collaboration with Wageningen University in the Netherlands. Her PhD research assesses how pastoral land use could be supported in the formal land administration system by instituting spatiotemporal land rights. She has also contributed in the development and testing of the Social Tenure Domain Model (STDM) – a pro poor land registration tool being pioneered by UN-Habitat. Prior to her PhD studies and lecturing in Rwanda, she worked with the Dutch Kadaster (Kadaster International) in the Netherlands.

Mr. Seid Hussen holds an MSc Degree in Land Management from KTH, Sweden and BA Degree in Economics from Makalle University, Ethiopia. Since 2004 he has taught in the department of Economics and in the Institute of Land Administration at BDU. He has served as head of Economics Department, Secretariat of Institutional Transformation Office, Deputy Director and Director of the Institute of Land Administration at BDU, Treasurer of Ethiopian Land Administration Professional Association. Currently he is Vice President for Academic and Research of Woldia University (a newly established public University) in Ethiopia.

Dr. Musinguzi Moses is a Land Surveyor with research interests in Land Information Systems and Spatial Data Infrastructures. He holds a bachelor's degree in Land Surveying from Makerere University, a Master's degree in Geographical information System from Nottingham University (UK) and a PhD in geo-informatics undertaken as sandwich between Uppsala University in Sweden and Makerere University in Uganda. He is currently the chairman of the Department of Geomatics and Land Management (Formerly Department of Surveying) at Makerere University in Uganda. Dr. Musinguzi Moses is secretary to the working group for the establishment of a Land Information System in Uganda.

Gordon Wayumba is Senior Lecturer in Cadastral Surveying and Land Administration at the Kenya Polytechnic University College, Nairobi. He holds a Bachelor's degree in Land Surveying from the University of Nairobi (1976), a Master's Degree in Remote Sensing and Photogrammetric Studies from Cornell University (USA), 1982 and is currently finalizing his PhD in the area of the "Evaluation of the Cadastral System in Kenya and a Proposal for its Modernization, and the Application of Geospatial Technologies". Mr Wayumba is a Member of the Institution of Surveyors of Kenya (MIAK), a Certified Land Surveyors of East Africa (CLS) and a practising Licensed Surveyor in Kenya.

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