

Ethiopia Land Administration and Nurture (LAND) Project

ETHIOPIAN LAND ADMINISTRATION PROFESSIONAL EDUCATIONAL DEMAND ASSESSMENT, AND BASIC CURRICULA AND INSTITUTIONAL CAPACITY REVIEW

Executive Summary

**John Medendorp, Ph.D., Human and Institutional Capacity Development Working Group
Center for Global Connections in Food, Agriculture, and Natural Resources
Michigan State University**

**Gerhardus Schultink, Ph. D., Professor,
International Resource Development and Planning,
Director Land Tenure and Administration Program
Michigan State University**

**John Bonnell, Ph.D., Human and Institutional Capacity Development Working Group Center for Global
Connections in Food, Agriculture, and Natural Resources
Michigan State University**

Mengistu Woube, Ph.D., Associate Professor, Local Consultant

**Alehegn Dagneu, LAND Program Manager
TetraTech, Addis Ababa**

**Raul Pitoro, M.Sc. Graduate Assistant
Michigan State University**

Background and purpose

Land security is foundational to a functional, peaceful, and prosperous society. An orderly system of land registration and supporting systems of land adjudication and land-use planning are key ingredients to this socio-economic formula for progress. With reason, the government of Ethiopia has made an efficient and effective land administration (LA) system a priority in its national strategic plan, and toward that goal, solicited the assistance of several international aid agencies, including the United States Agency of International Development (USAID).

In line with the purposes of USAID's Land Administration Nurture and Development Project, Michigan State University was contracted from January – December 2014 to conduct an empirical study of the public LA sector labor demand to guide Ethiopian universities and Technical and Vocational Education and Training (TVET) institutions to design and deliver LA training to LA officials and experts, land use planners and private surveyors. The report of the study at hand addresses several issues pertaining to the training need for Ethiopian LA professionals in the near- (5 year), mid- (10 year) and long- (20 year) term, as well as the current institutional capacity to meet this training need, based on current curriculum and capacity constraints.

Methodology and participants

The study conducted a public LA sector demand assessment carried out via a mixed methods approach: survey questionnaires and in-depth stakeholder interviews. The sample for the interviews and individual surveys were constructed with representatives from three principle stakeholder groups: (1) government LA officials and experts; (2) university administrators, instructors, and students in or related to LA programs; and (3) private sector representatives with vested interests in LA policy and practice. The study included meetings with stakeholders from the majority of Ethiopia's regional states including Afar, Amhara, Harari, Oromia, Somali, Tigray, and Southern Nations, Nationalities, and Peoples (SNNP) as well as from the two city administrations of Addis Ababa and Dire Dawa. In addition to the surveys, semi-structured interviews were conducted with key leaders and experts in the institutions visited. Interviews sought their perceptions of current and future demand for the technical and professional expertise needed in order to implement the land reform efforts, as well as their perceptions about the curricular and training needs and the current education and training system's ability to respond to those needs.

The first round of data collection focused on individual labor demand estimates. In a second round, nine national regional states were asked to submit labor estimates for each of their respective regions in order to correct the incomplete demand estimate in the first round of data collection. In addition, further information was sought from the Dire Dawa City Administration as well as the Ministry of Agriculture (MoA), particularly from the Land Administration and Use Department (LAUD), and the Ministry of Urban Development and Construction (MoUDHC) about their programs and plans. The researchers also acquired information from the various international agencies and NGOs working currently in land administration projects. The purpose of these efforts was to gauge the national labor demand for the land administration sector, and

also to analyze the resources currently available in terms of LA personnel, current education and training programs, and as well as training methods and results.

The study also includes a review of curricula submitted by the institutions that have been, are currently, or intend to offer training and education in the various areas of LA programs. These institutions included Bahir Dar University, Haramaya University, Ethiopian Civil Service University, Makelle University, Hawassa University, Woldia University, and a few TVET colleges. Additionally, in-depth interviews were held with representatives of Bahir Dar University's (BDU) Institute of Land Administration (ILA), Haramaya University (HU), Mekelle University, and the TVET training system in order to analyze the current and future institutional programs and human resources. Conversations with the Academic Vice-President of Woldia University provided information on the curricular harmonization process underway between Bahir Dar University, Haramaya University, and Woldia University.

Assumptions and limitations

Two assumptions underlying the study warrant mention (a more comprehensive description of these assumptions can be found in section 3.6 of the full report):

- It was assumed that the general trend in modern land registration systems is toward GIS/LIS technologies and that the Ethiopian LA system should pursue these modern techniques and their associated technologies.
- We assume that the regions, in making their regional estimates, are aware of and incorporated the labor needs that will be generated by the new LA sector structure.

Several limitations of the study warrant brief mention (a more comprehensive description of the limitations can be found in section 3.6 of the full report):

- Given the study's focus on the public sector, the researchers did not attempt to ascertain an accurate picture of private sector demand.
- Although regional estimates were made by regional authorities in the best position to make those estimates, it was not possible to independently verify those estimates.
- There is not yet a clearly defined methodology for registering pastoralist areas. It is unclear what level of demand this might generate.
- The researchers were unable to generate an accurate estimate of the current turnover and attrition rates in the public LA sector.
- The researchers were unable to investigate the reasons behind the anomaly of a large number of unfilled positions in the public LA sector and the large number of LA academic program graduates unable to find employment.
- The researchers were unable to find accurate information on the number of enrollees and graduates in LA related TVET training courses.

Findings and conclusions

This study, based on semi-formal interviews with key stakeholders in the LA system, diagnostics submitted by regional land administration authorities, independent city administrations, and national ministries, in-depth interviews with education and training representatives, 139 individual surveys, and extensive conversations with key internationally funded LA projects has concluded that the short-term national need for LA personnel is approximately 38,764 within five years, an additional 50,023 in ten years, and an additional 57,534 in 20 years. Thus, the study estimates a total of 146,321 additional personnel are needed over the next 20 years in the LA sector for the ten key LA functions listed in the survey instrument (see Table 1). Added to the 8,944 personnel currently working in the public LA sector, the total public LA workforce demand in 20 years will be 155,265 trained professionals and para-professionals.

Consensus exists that demand for LA professionals and technicians far exceeds supply and that this situation will continue in the distant future indefinitely unless immediate action is taken to expand the national institutional training capacity. Various respondents and groups indicated that the LA profession and the related certification activity is a new initiative for Ethiopia. Stakeholders agree that a comprehensive training capacity should be implemented through a multidisciplinary approach using appropriate technologies and incorporating all efforts into a single training and education system.

Based on survey and interview analysis, the report concludes that the need to increase the capacity of the land administration system can be organized into four categories, listed in order of urgency:

- complete the second level land certification process;
- digitize and archive all certifications into a national database based on national inventories;
- begin a long-term process of regular land management and protection activities that will maximize land use, land preservation, and soil conservation;
- and, build the capacity of and regularize the land appraisal, tax collection, and land adjudication structures and processes.

Given these four national priorities, the report identifies the following definable needs based on the estimates given:

- The largest single need is for LA technicians, followed by surveyors, especially those with GIS/LIS capabilities;
- GIS/LIS specialists who are in a position to process the results produced by an increased number of surveyors is also crucial to maintain records, create effective integration between national, regional, and sub-regional land administration units, as well as efficiently and effectively produce reliable and retrievable land certification records;
- A vision and culture of national professional land management needs to become part of the administrative structure of the EPLAUA. This requires advanced skills in land

management, LA, land use planning, and land resource. These higher level skills will take longer to develop, but form an important part of the national administrative structure;

- Support structures for the EPLAUA will be needed, including policy, legal, and educational experts. This will require specialized and advanced training in these areas;
- Anticipating the diminished need for personnel at the end of the LA certification process, designing and implementing a post-certification strategy that supports cross-training for personnel could provide viable employment pathways for personnel no longer in the LA sector.

Recommendations

Based on estimated needs, the report proposes a short-term (five-year) institutional and curricular strategy. Key recommendations include the following:

Institutional recommendations:

- *Incorporate parasurveyor training as the basis of the certification process.*
- *Develop a means to recognize acquired competencies of parasurveyors within the TVET QF system.*
- *Develop stronger articulation and transfer agreements between project training systems, TVETs, and universities.*
- *Increase the number of TVET institutions and QFs to meet the demand of approximately 100,000 TVET trained personnel over the next twenty years.*
- *Improve the quality of existing LA programs and gradually increase the number of institutions offering LA degree programs.*
- *Strengthen existing LA degree granting institutions through cooperative agreements with international universities to fill in gaps in expertise until local experts can be credentialed.*
- *Raise the annual number of Masters graduates to 30.*
- *Immediately identify five potential doctoral students for doctoral study in different needed areas of specialization in LA.*
- *Allocate a percentage of land tax revenues to the development of LA programs.*

Curricular recommendations:

- *Develop clear competencies for parasurveyors and fit the competencies within the Qualifications Framework of the TVET system.*
- *Develop a TVET program for mapping and surveying.*
- *Develop a TVET program for GIS/LIS technicians.*
- *Develop a TVET program for Land Administration Technician.*
- *Develop a specialization in Land Law.*

- *Develop a doctoral program for Land Administration. Implement a four-level training system featuring strategic emphases at the parasurveyor, TVET, undergraduate, and post-graduate levels.*
- *Develop articulation and transfer agreements between these tiers so that trainees can move easily from one level to the next.*

If adequately resourced and implemented, these recommendations will help generate an effective LA system in Ethiopia in the near term, while building the foundations for long-term sustainability and the accomplishment of the objectives for which the LAND program was initiated.

Validation workshop and next steps

In order to ensure the applicability of the outputs of this research, the study design included a validation workshop. The Tetra Tech Land Administration office organized the workshop in collaboration with the study's consultants. The workshop occurred in Bishoftu, Ethiopia on June 23 and 24, 2015. The purpose of the workshop was to receive critical feedback on the following aspects of this study: (1) data collection and data analysis methodology for both the demand assessment survey and the curricula & institutional capacity assessment; (2) institutional and curricular recommendations; (3) proposed training strategy and implementation plan. The research team reviewed each point of the workshop feedback. The existing version of the study's full report incorporates updated data, curricular and institutional assessments based upon more recent curricula, and many of revised data points from the labor demand survey.

The two-day workshop engaged over 30 stakeholders from the Land Administration system in Ethiopia. Participants represented a diversity of sectors from the LA system including the MoA, MoUDHC, city and rural LA systems, TVET institutions, universities, private sector, and international agencies (See Appendix I in the full report for a detailed list of participants and represented agencies, organizations, and institutions). This breadth of diversity was one of the greatest strengths of the workshop, providing robust analysis of the methodology, assessments, and recommendations of this report.



Dr. Aregay, Deputy of Chief of LAND, delivering a welcome speech

The research team designed the sessions of the workshop mindful of adult learning theory and focus group research methodology in order to maximize stakeholder participation. Day 1 included an introduction of participants, presentations from each member of the research team, and participatory feedback sessions guided by a semi-structured group discussion protocol. Round 1 of stakeholder discussion organized groups according to sectors (e.g. public administration, academic, non-government organizations, etc). Round 2 of stakeholder discussion organized groups across sectors. The various rounds allowed participants to engage and provide ideas from similar and different perspectives as their own. Appendix I includes the workshop program, and semi-structured group discussion protocol.

Overall, the stakeholders expressed strong appreciation for the report. In large part the stakeholders validated the methodology, findings and recommendations. Major ideas and recommendations that stakeholders validated include the following: the need for technical training at lower education levels is critical to finish the credentialing task; toward that end, reliance upon TVET institutions and short courses to develop parasurveyors is a feasible strategy to develop the bulk of the labor demand for credentialing land; designing sandwich programs to develop a PHD program in LA related fields is a key strategy for sustainable management of Ethiopia's LA system. In terms of next steps, stakeholders recommended convening an "endorsement workshop" for responsible parties at ministry, universities, and regional levels to establish a governance structure for oversight of the implementation plan, budget, and a monitoring and evaluation plan.

Table 1: Combined Urban and Rural Sector Demand Estimate

Position	Current Public LA Sector Personnel	5 Year Demand	10 Year Demand	20 Year Demand	Future Demand Totals
Land surveyors (parcel and cadastral surveys)	1959	7,793	6,932	8,933	23,658
Land/real Estate Appraisers and Tax Specialist	148	2,204	2,980	5,301	10,485
GIS+ Geographic information System with generic spatial analytical functions.	618	3,061	3,790	6,050	12,901
LIS= Land information System including relational data base and cadastral information linkage	194	2,839	3,526	5,918	12,283
Land use Managers (Land Conservation Environmental planners)	664	2,025	2,344	3,344	7,713
Land Use and City Planners	1344	3,408	3,750	6,562	13,720
Land property Lawyer	368	5,275	9,095	1,323	15,693
Land Administration Technicians if any please specify below	35	8,420	13,549	14,592	36,561
Information technology & web site data encoder expert	16	54	44	37	135
Land administration experts(land admin, valuation, registration, investment etc)	3598	3,685	4,013	5,474	13,172
Totals	8944	38,764	50,023	57,534	146,321