

# Ethiopia: Growing Initiatives for the Improvement of Cadastre in Urban Amhara: Potentials, Prospects, Challenges

**Melkamu Belachew Moges, Ethiopia  
Institute of Land Administration,  
Bahir Dar University**

## 1.INTRODUCTION

- The present Urban Development Policy of Ethiopia recognizes four components: expansion of micro-business enterprises, housing development, provision of lands and development infrastructure, development of social services, and setting urban classification, urban planning and environmental protection.
- Provision of lands is one major component.
- The provision of lands component itself incorporates seven principles; real estate registration, provision of title deeds, and enhancing real property transactions is unambiguously provided.

- Constraints on the policies and strategies: absence of good governance, proliferation of illegal (informal) settlements, poor urban management, outdated and/or rigid development plans, urban decay, and capacity problems.
- These problems are further aggravated by the absence of well-organized and efficient cadastre system.
- Long tradition of urbanization in the ANRS but it is not accompanied by sound urban management and development.
- The problem of urban management is highly observable in all urban centres in the region, which partly results from lack of proper real estate registration system.

- Lack of systematic and updated cadastre system has a negative effect on the overall development of urban centres because municipalities could not effectively utilize the resources at their respective disposal.
- Today the national government has well recognized this problem and as a result it not only has included real estate registration in the national Urban Development and Urban Land Policies, but also specially the ANRS is taking visible steps to lay down an appropriate real estate registration system (cadastre and land register) in its urban centers.
- These steps seem to increase in their dimension or scope from time to time.
- Various steps and the growing initiatives discussed here with some analysis of the prospects and problems.

## 2. CADASTRE IN THE AMHARA REGION

### ● In the Rural Areas

- Customary institutions and laws underlying real estate management in Ethiopia, both urban and rural.
- After 1997 some policy initiatives made to establish sound land administration system- rural land registration and certification in Oromia, Amhara, Tigray and Southern Nations Nationalities Peoples regional states.
- Especially, in Amhara Region, major steps began to be taken in 2000. The ANRS first law on rural land administration was issued (Proc. No.46/2000) following the issuance of the Federal Government Rural Land Administration Proclamation in 1997 (Proclamation No.89/97).

- Later replaced by a new law 'The Revised (Amhara) Rural Land Administration and Use Determination Proclamation No.133/2006.'
- This law adopted following the replacement in 2005 of the 1997 Federal Law by the 'FDRE Rural Land Administration and Land Use Proclamation No. 456/2005.'
- The relationship between the Federal Land Administration laws with those of the Amhara region is that the latter are adopted to implement or facilitate the Federal land laws

- This law regulates the surveying and land registration, or generally cadastral activities and procedures in the wider context.
- systematic land registration.
- two types of registration in the region: the conventional (using modern surveying instruments like GPS) and non-conventional (using traditional and non-geometric methods)
- The conventional systems of surveying, registration and mapping activities started in two pilot Kebeles: Adisnaguilt and Gerado Endodbir .

- The data obtained is kept both in manual and computerized form.
- The data in the permanent book of register is transferred to a computer data base system called Information for Land Administration (ISLA) . Thus automation is an important part ...
- The Environmental Protection, Land Administration and Use Authority/ EPLAUA, is the regional equivalent of the Federal public agency called Ministry of Agriculture and Rural Development (MOARD), as it is responsible to the effective management, administration and use of rural land at the regional level.

- According to annual official report of EPLAUA, since registration started about 98.76% of households have their lands registered and measured.
- From this, 66% have received first level book of holdings; and the remaining 34% of them have received only provisional land holding certificate.
- This shows that the rural land registration in the region is being undertaken relatively effectively. Unfortunately, presently the urban land in the region is being treated differently from the rural one and far behind the latter.
- There are quite a lot of differences between them in terms of organisational structure, legal framework, technicalities, scope, attention, and so on.
- We shall see this in a better detail in the remaining part of this paper.

### ● In the Urban Areas

- Looking back at history, it was in 1907 that Menelik II promulgated the country's first urban land-related legislation.
- The legislation consisted of 32 articles which included, among others, procedures for the sale and registration of land holdings.
- The law also advocates the issuance of land certificates which were then referred to as "ye rist woreqet", that were written in Amharic and French, with a clearly defined boundaries of plots.

- Real estate registration in Amhara region existed in very limited scope.
- Municipal administrations have been registering land possessions, along with their associated buildings (houses), merely to provide title deeds to owners of such properties.
- The existing registration system, however, does not encompass detail information of plots and as a result it could not provide all the necessary information that is needed for various functions.

- Attempts have been made in the last decade to introduce relatively modern form of land information system.
- Bahir Dar, the capital of the ANRS, is among the four pilot towns (others are Mekelle, Awassa and Adama) over which a cadastral project has been exercised under the auspices of the Urban Development Support Service (UDSS) and the German Technical Support (GTZ).
- At present, the initiatives for the cadastral system have increased and as a result a new World Bank financed project is being implemented in 4 urban centres of ANRS, namely, Bahir Dar, Gondar, Dessie and Kombolcha.

### 3. CADASTRAL INITIATIVES IN URBAN CENTRES OF ANRS

- Cadastre from 1999-2004
- Introduction
- In Bahir Dar, modern cadastre was started in September 1999 as part of the national cadastral pilot project including 4 regional capitals, namely, Mekelle, Bahir Dar, Awassa and Adama.
- Spatial data collection was done through detail topography surveying work. Parallel to the surveying work, field investigation (collection of attribute data) was done.

- Ground surveying and socio-economic data collection work was completed in 8 Kebeles (former Kebeles 03,04,05,06,12,13,15 and 16) out of the former 17.
- The completed number of plots was 7,100 on an area of 820 hectares.
- **Data Content and Type**
  - In the 1999 cadastral system of Bahir Dar, the data are set in six separate database tables connected by a common Code Number.
  - The first is the Owner's Table. It has the code number, details of the owner (name, address, nationality), details of acquisition of the land (type, document, and date of acquisition), and a note of whether tax is paid or not.

- The second table is the Parcel Table.
- This includes the code number, parcel area (as to the document in the Municipal archive, and actual measurement), access to road (asphalt road, gravel road, etc.), type of tenure ( lease, rental, other), access to street light, and liability to flooding.
- The third table is the Building Table.
- It consists of the code number, year of construction, ownership type

- (owner -occupied, Kebele -rented, R.H.A rented, public owner, religious, other), the number of storeys, building area (as per the document in the Municipal archive and actual measurement), use of building (residential, commercial, manufacturing, public, mixed), number of annex buildings, building material, type of roof, type of ceiling, and type of floor.
- The other is the Utilities Table. It contains the code number, type and use of toilet, details of the kitchen (private, shared, none), details of electricity (private meter, shared meter, none), type of use of water facility, and telephone description.



- Then comes the Dispute Table. It consists of whether or not there is a boundary dispute and if there is one the parcel number, and ownership dispute.
- The last is the PLOTADD Table which consists of the Code Number, Town, Wereda, Kebelle, Block, Parcel Number, Parcel Grade and House Number.
- This cadastral system also includes cadastral map showing the relative location of each property and its parcels in relation to other property, parcel number, parcel area, boundary, and main roads- but it does not show such matters as land use, water and sewerage facilities, etc.

- Observations on technical problems or inefficiencies:
  - the incompleteness of the data. The system does not include information about the value of the real estate. (Tax value or other).
  - no room for restrictions or encumbrances mainly mortgage and rights of use such as easement.
  - no description of the boundaries.
  - no data on agricultural land, forest land, environmental quality, and demography.
  - no registration manual book/only socio-economic or attribute data.

- a good maintenance and updating system also needed.
  - Clear guidelines and procedures are required for this.
  - Clear guidelines also required on the role of different users to logging of access, monitoring and following-up of logging, and authorized approval of entered data to keep the demands of safety and security of the information.
- Type:
- systematic approach, and
  - the conventional method applied.

### Financing the Cadastre

- The Cadastre is run by the government's money through out.
- In fact, there is little contribution by the land holders called 'surveying fee' and 'stone planting fee', generally for the service given by the surveyors.
- But the system has not put any mechanism to sell the information for the users in general.

- On the other hand, the general trend in efficient cadastral systems is to seek financing more directly from the users.
- The system should be more dependent on income from selling its information and it is then that the cadastre will be more sustainable.
- In doing so, however, it is essential to maintain its completeness and quality, and define by law the ownership of the information and associated copyright rules.

#### *4. Cadastre since 2006: the New Cadastral Project*

- **Introduction**
- The 1999 cadastre process at Bahir Dar had stopped since 2004 which hampered the completion of the intended project.
- The reasons: lack of general awareness of cadastre, lack of understanding the significance of cadastre on the part of the administrators in the municipality, operating the system by simple guess with out clear guidelines and procedures (e.g., no regulations), lack of correct attribute and socio-economic data, lack of fairness and independence where the powerful people were advantaged at the cost of the weaker people, non-conformity with the physical planning resulting in such as closing roads.

- These problems in turn resulted in division of opinion among the task force themselves- whether it should continue or not in that way; and chaos in the urban people.
- What is more, the foreign technical advisor completed his contractual period.
- In 2006, a new project was designed to commence the stopped real estate registration system.
- We can therefore observe four stages with respect to cadastre in Bahir Dar in terms of time as shown in the following table.

| Before 1999 | 1999-2004                         | 2004-2006                                      | After 2006                           |
|-------------|-----------------------------------|--|--------------------------------------|
| No cadastre | Cadastre in 8 Kebeles/<br>project | Cadastre in 8 Kebeles,<br>no further expansion | New project to commence the Cadastre |

- The various stages of Cadastre in Bahir Dar
- The project provides: the objectives of the project, the scope of the work, the methodology, and a brief description of the major activities.
- **Objectives of the Project**
- The general objective of the project is to support the city development through completing stopped effort of establishing an efficient land management system in Bahir Dar.
- The main specific objectives include;
  - -establish an up-to-date and accurate land information system,
  - -increase the income of the municipality through introducing an efficient land taxation system,

- -complete by updating and introducing GIS application to the eight surveyed Kebeles,
- -standardize and issue land certificate to all real property owners,
- promote GIS supported decision making process,
- -introduce plot addressing system/ parcel-based cadastre.
- -modernize the urban land administration system by introducing IT and art of date skill,
- -improve the municipal service provision system by introducing transparency and efficient working procedures, and
- -produce a tourist guide map,

### ● **Scope of Work**

- The scope of the work in the project shall be seen in two contexts: first, the spatial coverage of the project and second, the depth or quantity of work to be performed.
- Spatially, the project will cover the city of Bahir Dar as it was delineated recently.
- This area includes the previous urban area, which includes the new 9 urban Kebeles and (the former 17 kebeles), and the 4 neighboring rural Kebeles, an area which is designated for future urban expansion.

- The scope of work can be grouped in to three major activities. These are:
- **Raw data collection**; an activity which mainly includes the ground surveying and the socio-economic data collection activities.
- **System Building**; this activity incorporates data entry, base map and data base formulation, detail plan study, and introduction of GIS application. This activity includes also the formulation of procedures and regulations.
- **System implementation**; here, the preparation of title deeds, the preparation of tax bills, the production of GIS maps, the production of address maps and tourist maps will be incorporated, among other things.
- The data collection process: primary and secondary.
  - The base map will be produced using the primary data which is obtained from the detail ground survey

### *Methodology*

- The same applies to the data base development.
- Data will be collected from field using the socio-economic data questionnaire.
- The questionnaire will be completed by interviewing property owners.
- In the case of the secondary data, individual files found in Municipality's archive will be used to cross check information collected from the field investigation.
- Public awareness creation meetings prior to entering a new Kebele..
- 

- workshops will be organized to evaluate the progress of the work.
- The consultant is expected to submit a monthly progress report.

### *Major Activities of the Project*

- updating the eight formerly surveyed Kebeles,
- graphic/ spatial data collection and base map production,
- attribute data collection, data entry,
- detail plan preparation,
- GIS application,
- producing working procedures and regulations,
- training, and
- system implementation.

## 5. DEVELOPMENT OF THE 2006 PROJECT: THE 2008 CADASTRAL MANUAL

- **Introduction**
- The 2006 project finally culminated in the preparation of a comprehensive cadastral manual in April 2008 by a private consultant known as Prime Consultants PLC commissioned by the Regional Capacity Building Bureau and under the financial support of the World Bank.
- The consultant has identified the problems of the previously existing cadastral practices (such as lack of legal framework) in the region and has come up with a systematic and usable approach of cadastre system that could be easily implemented in all urban centers of the region.
- The manual is designed to carry out a comprehensive cadastre system of all urban centers of the ANRS.

- Some of the main objectives of the manual are:
- -To assess the cadastre problems in collecting field surveying and socio-economic data, processing and monitoring the output,
- -To assess real properties, owners, provision and updating of collected data for taxation purposes with permanently monument control network and to assess the problem of locating boundaries, recording, and updating of information that defines ownership rights and their limitations depending on the legal characteristics of the cadastre in operation, the survey data together with other documents available in the towns and municipalities,
- -To assess the surveying and mapping products resulted from cadastral operations aimed at satisfying the above functions, and



- -To assess open spaces, slum areas, land for investment, infrastructure and cadastre utilities of major towns.
- According to the manual, the network and hardware for the cadastre application in the region has the following functions/themes:
  - -Cadastrals and property registers,
  - -Interconnect different land stakeholders,
  - -Production of topographic and thematic maps,
  - -Mapping and documentation of technical infrastructure,
  - -Mapping and documentation of community facilities, and
  - -Data bases on natural resources.

- The consultant has selected 20 sample towns that could fairly represent urban centers of the region and conducted research on them.
- Also some preconditions were set for the cadastral work: establishing an organizational set up, preparation of a legal framework, creating leadership commitment and community participation, awareness creation, training to the cadastral team, designing an implementation strategy and setting a monitoring or evaluation method.
- The manual envisages somewhat a different cadastre system for the different levels of towns in the region.

- Accordingly, at metropolitan and city administration level multi-purpose cadastre with digital (computerized) system is proposed because these urban centers are supposed to have the necessary capacity to carry out such a comprehensive cadastre system.
- On the other hand, urban centers at lower levels, namely, lead municipalities and emerging town administrations are proposed to have fiscal and/or legal cadastre system through analogue (manual) application as their capacity is lower.
- The later towns should step through incremental approach to multipurpose cadastre.
- That means they should first strengthen their capacity through fiscal cadastre and then turn to legal cadastre and finally after attaining efficient legal cadastre they can cruise to multipurpose cadastre.

### *6. Cadastre in the Metropolitan and City Administrations*

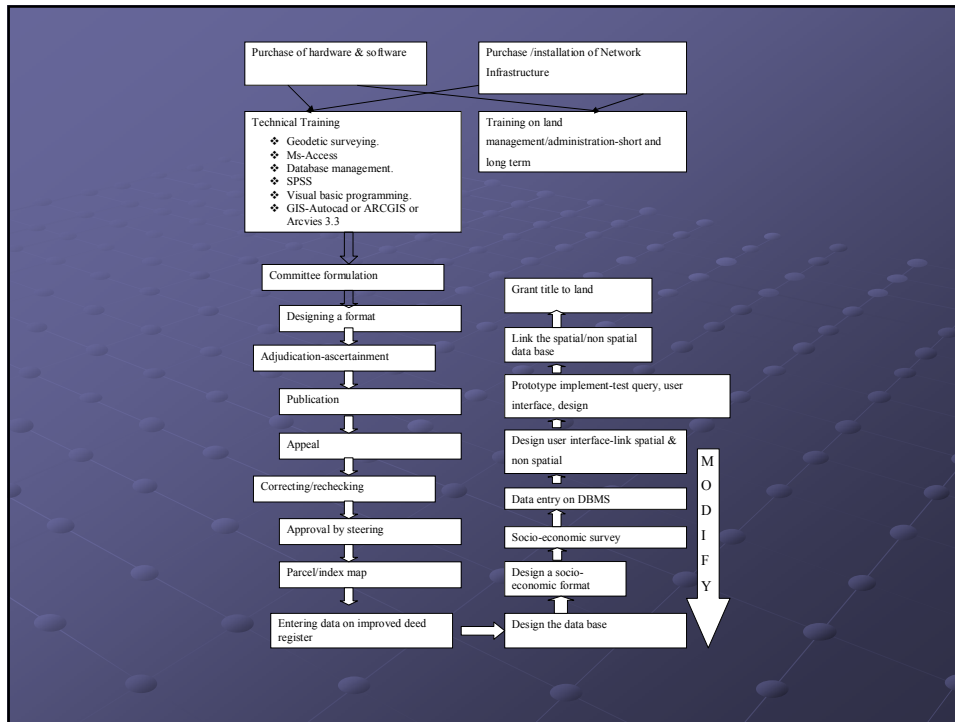
- Because of the better level of economic development and pattern of the population, a multipurpose cadastre which uses modern technology like GIS is recommended in towns classified as Metropolitan Towns and City Administrations.
- The advantage of utilizing GIS for multipurpose cadastre is that it helps in more valuable data manipulation and analysis.
- Moreover, the output of GIS such as maps and analytical information emphasizes its importance.
- The GIS database being developed is going to be compatible with the main database system.

- The system is designed to work in SQL server in order to share data among the system.
- The GIS database is recommended to be created in ArcGIS format which is a product of the Environmental System Research Institute.
- Under the envisaged system, a parcel holds a lot of data beyond the parcel basic information.
- The following table shows contents of a parcel data.

| <b>Parcel information</b> | <b>Building information</b> | <b>Address information</b>  |
|---------------------------|-----------------------------|---|
| Property number           | Building number             | Street name and house number  |
| Surface/area              | Type of building/use        | Information about various districts (school, parish, statistical area, etc) |

|   |  |             |
|---|--|-------------|
| Current land use  | Number of floors   | coordinates |
| Owners name and numeric identifier (transferred from the Land Book) | Numbers and data about each flat (number of sqm, number of rooms, etc) |             |
| Owners postal address   |  |             |

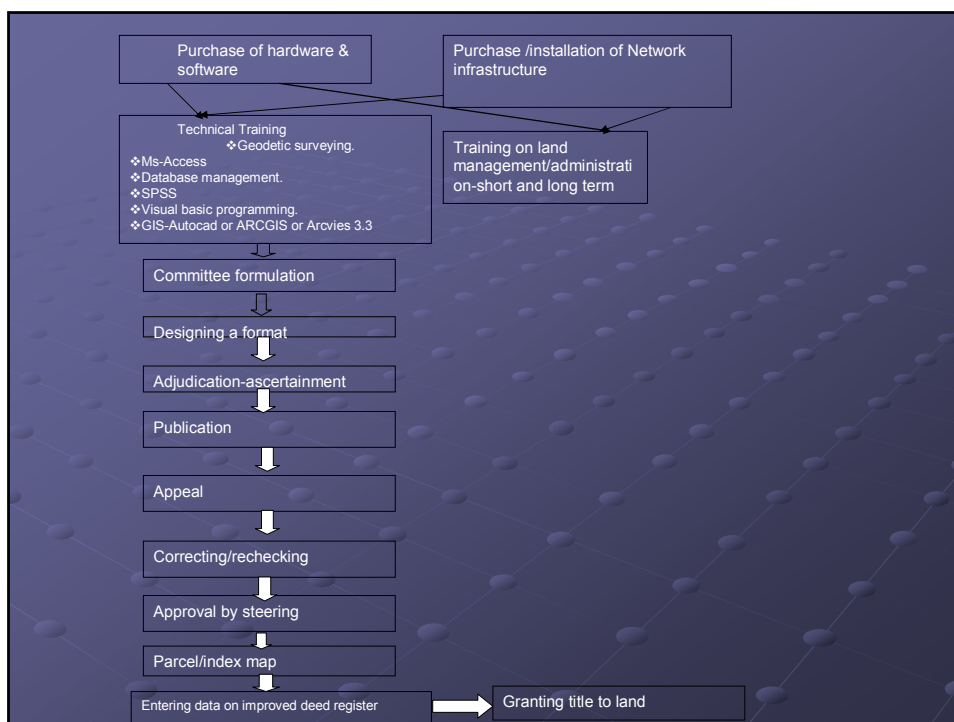
- Moreover, the manual provides for the general methodology for performing real property registration and hardware/system design as shown in the following figure.



- In the Metropolitan cities, namely, Bahir Dar, Gondar and Dessie and Kombolcha, the establishment of the system is financially assisted by the World Bank.
- It is strongly believed that the system will continue to work if the other conditions are met.
- However, the City Administrations are expected to cope up with the financial challenge that they will surely face and should work aggressively and in strong coordination in order to sustain the system as envisaged by the manual. It must be noted that there are some positive measures being taken to make the cadastre system successful.
- Hence, capacity building is made at a certain level, the concerned bodies are discussing about the suggested organizational structure for the urban cadastre, and most important of all, preparation of legal framework is being undertaken with expected positive results.

## 7. Cadastre System for Lead Municipalities

- It is said that lead municipalities have a very limited resources and capacity to conduct multipurpose cadastre at present.
- Almost all cities at this level have great shortage of skilled manpower, insufficient budget, inconsistent administration, lack of networking with other departments and so on.
- In this case, the cadastre system focuses on setting simple and efficient procedures, based mainly on the manual system, for establishing geographic references and cadastre for revenue collection.
- The information base consists of maps produced manually and a computerized alphanumeric data base of land parcels.
- The general methodology for performing real property registration for the manual system is indicated below.

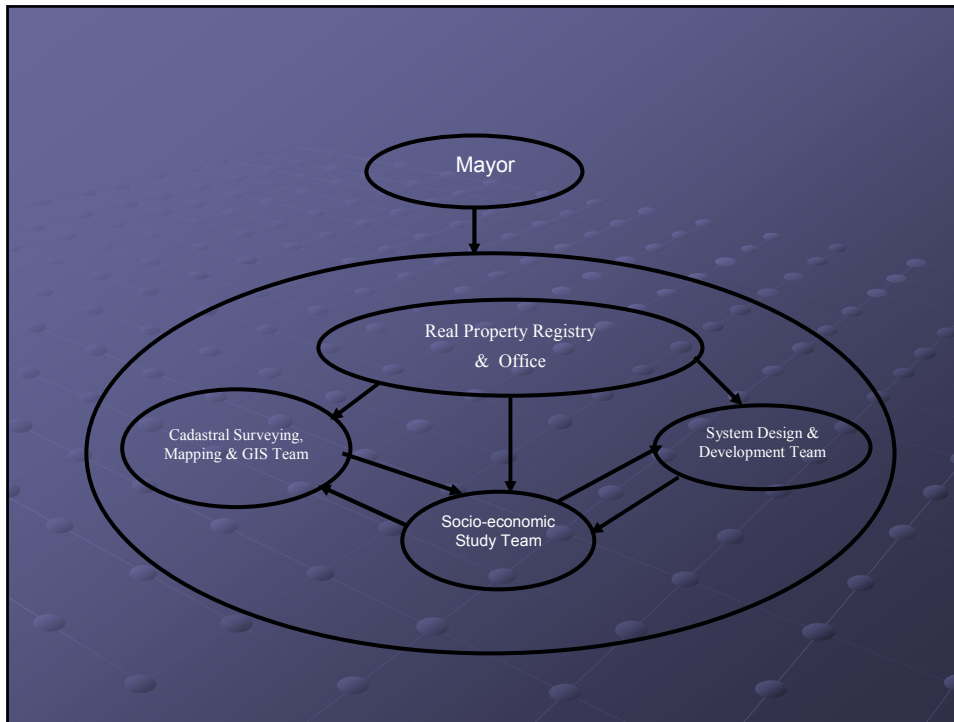


- Lead municipalities also require strong capacity building such as in finance and personnel in order to effect the cadastre system and have to work strongly in this regard.

- **8. INSTITUTIONAL ISSUES**

- The manual envisages a new type of organizational structure for the urban cadastre system in ANRS at various levels.
- At the regional level there shall be a cadastre office under the Bureau of Works and Urban Development.
- The office shall oversee the overall land information system in the region and shall be accountable to the Bureau.

- For the Metropolitan Cities and City Administrations, a “Real Property Registry & Cadastre Information Office” shall be established under the Mayor which shall be responsible for cadastral works and related activities.
- Under the office there shall be three teams: Cadastral Surveying, Mapping & GIS Team, Socio-economic Study Team, and System Design & Development Team.
- The following figure shows the organizational structure of the cadastre:



- With regard to Lead Municipalities & Emerging Towns, there shall be a Department at the Zonal Works & Urban Development Offices to give cadastral services.
- In fact, if they are capable, they can have a structure similar to the City Administrations.
- An important question: which public organ must be in charge of real estate registration in the region- the Municipality/ the EPLAUA dilemma. The responses from 20 interviewees (10 from EPLAUA and 10 from the Municipality and Bureau of Urban Works and Development) have clearly shown that the EPLAUA is better suited to handle all real estate registrations.
- The following table shows institutional arrangement in operating real estate registration in Bahir Dar:



| Question   | Answer                        |
|--|-------------------------------|
| Of the two real estate registration authorities (the Municipality/EPLAUA) which do you think is better to effect real property registration? | EPLAUA: 16<br>Municipality: 4 |

□ The justifications in favor of EPLAUA:

1. better available human, legal, technical and financial resources:

-EPLAUA has at least 15 specialists on land (MSc. holders),

-there is a law governing rural land administration (Proc.133/2006),

-there is already a computer system called ISLA, and

-public budget allocated for same purpose.

2. commonality of the nature, principles, objectives and significances, evaluation frameworks and technologies of real property registration in respect of both the rural and urban land.

3. saving of human, financial and technological resources.

4. the need for the uniformity of the responses given to similar various problems in land administration.

5. payment of compensation during expropriation. This needs to be done based on similar rules to attain the required fairness and equality.

6. the urban expansion that is happening in Amhara region at an alarming rate.

7. the current global trend in the world towards multipurpose cadastre and cooperation.

● Suggestions:

● EPLAUA should handle real estate registration with respect to all lands-urban or rural- in Amhara region.

● The regional law maker should consider this duly and properly weigh the strength and weakness of the different arrangements having regard to the long-term effects.

● Matters that must be considered following the policy decision to the effect that urban land of Amhara region will be the responsibility of EPLAUA. The changes that have to be made with regard to the present legislations, institutional reengineering, recruitment of additional staff, and the financial and technical implications.

● In addition, there is a great need for cooperation/coordination and political awareness.

## 9. CONCLUSION AND RECOMMENDATION

- At present, the problem of urban management is highly observable in all urban centers in the region, which partly results from lack of proper real estate registration system.
- Lack of systematic and updated cadastre system has a negative effect on the overall development of urban centers because municipalities could not effectively utilize the resources at their respective disposal.
- Hence, especially the ANRS is taking visible steps to lay down an appropriate real estate registration system in its urban centers. These initiatives are growing from time to time with a great potential to expand.
- In Bahir Dar, modern cadastre was started in September 1999 as part of the national cadastral pilot project including 4 regional capitals, namely, Mekelle, Bahir Dar, Awassa and Adama.

- This process had stopped since 2004 which hampered the completion of the intended project.
- In 2006 a new project was designed to commence the stopped real estate registration system.
- This project plainly provides the objectives of the project, the scope of the work, the methodology, and a brief description of the major activities. This project finally culminated in the preparation of a comprehensive cadastral manual in April 2008 by a private consultant known as Prime Consultants PLC commissioned by the Regional Capacity Building Bureau and under the financial support of the World Bank.
- The purpose is to carry out a comprehensive cadastre system of all urban centers in the region. The manual envisages a different cadastre system for the different levels of towns in the region

- For the new cadastre system to succeed, it is strongly believed that many conditions be met.
- Thus, the City Administrations are expected to cope up with the financial challenge that they will surely face and should work aggressively and in strong coordination in order to sustain the system as envisaged.
- In this regard, it must be noted that there are some positive measures being taken to make the cadastre system successful: capacity building is made at a certain level, the concerned bodies are discussing about the suggested organizational structure for the urban cadastre, and most important of all, preparation of legal framework is being undertaken with expected positive results.

- Lead municipalities also require strong capacity building such as in finance and personnel in order to implement the cadastre system and have to work strongly in this regard.
- Indeed, at this critical time, one of the most important questions in the land administration of Bahir Dar should be the issue of which public organ must be in charge of real estate registration in the region-the Municipality/ the EPLAUA dilemma.
- In this respect, I highly recommended that EPLAUA should handle real estate registration with respect to all lands-urban or rural- in Amhara region.
- The regional law maker should consider this duly and properly weigh the strength and weakness of the different arrangements having proper regard to the long-term effects.

# Thank You!

👏 I very much applaud you for your attention!!!