

The Value of the UN/ECE “Land Administration Guidelines” and some considerations for its Upgrading

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Abstract

This paper is a study made first to assess the value of the “LA Guidelines” produced by the UN/ECE in the year 1996. A brief description of their purpose and their content is given and the extent of their usage is examined. Secondly, the reasons for their future updating and upgrading are investigated.

An analysis is made concerning the new trends in LA and the contemporary needs of users. Some parts of the text, which need revising are suggested. The most crucial factors for the successful implementation of a LA system are identified through a study of the ongoing LA projects and finally, a series of institutional and policy level recommendations aimed at the development of the LA Guidelines to an updated document of broader usage are given.

1. Introduction

One of the targets of the Athens joint UN/ECE WPLA and FIG Com3 and Com7 Workshop is the investigation of the possibility of updating the “Land Administration Guidelines” publication of 1996. For that purpose, it was decided that participants should examine the new trends in Land Administration and propose ways and methods for the sustainable development of the Real Estate Market. The resolutions of this workshop are expected to serve as input for the future improvement of the Guidelines.

This paper first tries to emphasize the value of knowledge and experience sharing by having such a document available, despite the fact that there is no such thing as a unique model for a land registration system applicable in all cases. It is exactly because of that and because of the complexity of the aspect, since the implementation of a cadastral / land registration system involves political, legal, administrative and multi-technical approach, together with the fact that in most cases it is also a very expensive and time consuming task, that the need for sophisticated and updated guidelines becomes even more important.

Secondly, the focus of this study was on investigating the various critical factors for implementing an efficient LA system and on making some general and some specific proposals and suggestions derived from the experience

gained so far by the study of the recent relative developments in LA projects in countries in transition, developing countries, and others, including Greece, and the resolutions of the recent UN/ECE WPLA workshops.

It is suggested that governments need help to understand exactly what they and their societies require of a Land Administration system. For that purpose education in Cadastre and Land Administration has a major role to play and a long way to go.

2. The UN/ECE “Land Administration Guidelines” and its Value. What is it?

Ten years have passed since the United Nations Economic Commission for Europe (ECE) launched an initiative *to strengthen “Land Administration capabilities” mainly for countries in east and central Europe* (UN/ECE 1996).

For that purpose, a number of workshops were organized to identify the current needs and problems and to assess the possibilities for applying methods, policies and procedures of Land Administration similar to those that evolved over a long period of time in the market economies of the ECE region. To follow up this activity, a Task Force was established to prepare the UN/ECE “Land Administration Guidelines” publication.

Since the main objective was to assist the countries in transition (senior governmental staff and politicians engaged in land administration issues), to overcome the problems related to land administration, due to their attempt to pass from the socialist command style economy back to the market economy, the Guidelines, based on experiences in eastern and western Europe, define the term “Land Administration” (LA) as *“the processes of recording and disseminating information about the ownership, value and use of land and its associated resources”* and focused mainly on defining guidelines for the establishment of a reliable Cadastral System or Land Administration System and on its benefits in supporting the market economy. (UN/ECE 1996)

Ten years ago those of the western European countries that had already established well-developed cadastral systems were in the process of introducing computerization and digital methods to their systems. Moreover, much consideration was emerging towards developing the necessary policies for a cost-recovery and user-needs approach.

The “LA Guidelines”, as a text based on the experience derived both from:

1. workshops and all relevant activity organized by the UN/ECE, in which most European and international experts contributed and exchanged their experience and ideas, and from the
2. task force group, consisting of experts either from the academic environment, with theoretical knowledge and awareness of the variety of the existing cadastral systems but also of the new trends in the field of LA, and/or from senior governmental staff of the public sector responsible for the Cadastral Projects, both in western and/or eastern European countries,

has proved to be one of the most important UN/ECE publications on the issue. Its value has been proved from the fact that, since its publishing:

- every LA project in eastern Europe has been aligned with the ideas and instructions and the general concept of the “LA Guidelines”
- even cadastral reforms that took place during the last ten years in western European countries, like Greece for example, or in other parts of the world outside the range of ECE like countries of Latin America, consulted the “LA Guidelines” and followed their main concepts (UN/ECE 1996)
- all LA reviews of the ongoing LA projects, made by the cadastral experts, had a reference to the ideas mentioned in the “LA Guidelines”
- many publications and scientific papers presented both within UN/ECE WPLA workshops, but also in workshops and meetings organized by sister international and European organizations and forums, like FIG, INSPIRE, EULIS, Eurogeographics, etc, have a reference to the “LA Guidelines”.

The “LA Guidelines” contain the:

- *basic theoretical issues*, terms and a brief description of the state of the art in LA together with an analysis of the benefits of a good LA system,
- *legal issues* concerning the legal status of land and real property, the land tenure, the different systems for recording rights, the adjudication procedure, the different approaches in the guarantee of boundaries, the concept of the “cadastral survey” and the legal issues related to that and the regulations that should rule the use of land parcel information,
- *financial matters* related to the valuation of land and the different approaches, the importance and the difficulty in assessing the costs and calculating the benefits of LA, and also finding funding sources,
- *land use planning* related to the role of the cadastre in physical planning in urban and rural areas, the environmental monitoring,
- *institutional arrangements* related to land policy, land information management, intergovernmental coordination, centralization and decentralization, public and private sector, administration of cadastral data, staff and management training, research and consultancy needs
- *technical matters* related to modern geodetic control networks and cadastre, GPS, electronic data processing, determination of the objectives, the system design, the creation of digital data sets, the procurement of H/W and S/W, the determination of forms of access to the data, and the
- *procedures for introducing a LA system* such as the determination of user needs, the creation of new administrative and organizational structures, the preparation of new legislation, the determination of adjudication process, the surveying of land and property boundaries, the management of land information, the establishment of financial procedures and the development of awareness, together with useful recommendations and the new trends of the particular time period.

Some of the benefits of the LA Guidelines are given below:

- it is a text written in a simple, easily understandable, not completely technical language,
- it is a relatively short (94 pages in total) but also very comprehensive text,

- it covers all main different matters that should be taken into account in implementing and maintaining a solid LA System.

Due to its above described structure and content, during the ten years it has served as a useful and wise tool both for the countries that are at the initial stage of establishing a LA system to support their entry to the market economy, but also for the countries which always belonged to the market economy and still need to improve their land tenure registration system. The more experience one may gain through the implementation of a LA project, the better one can realize the value of the text.

The UN/ECE WPLA Bureau during its recent meetings started a discussion about investigating the need for updating the LA Guidelines. Among the objectives of the Athens WPLA Workshop, 28-31 May 2003, is to focus on the new trends in all different aspects that were addressed in the LA Guidelines, so that some of the necessary input for its future updating will be collected.

3. Why to revise the LA Guidelines? Identification of the Need

The progress achieved so far by the countries in transition shows that these countries are no longer at a primitive transitional stage. Most of them have made big steps towards the land restitution process or the privatization of land, and the implementation of a new cadastral system, which will secure the land tenure and serve the new needs of the land market. Most of them use modern digital methods and have announced that the existing restitution is approaching completion (UN/ECE 2002c).

Although the present LA Guidelines so far serve their original purpose and have helped institutions, politicians, special scientists and project managers in those countries to fulfill their LA activities more efficiently, at this stage as it is proved by the country LA reviews, new problems have to be faced.

Urban land markets in the transition countries are characterized by a lack of access to capital and credit in the domestic sector (mortgage banks are a comparatively recent introduction); property investment is still perceived as high risk; the valuation system is still weak or inconsistent; rural land market values are so low that in fact there is no interest for any purchase (Dale, Baldwin 2000). The need for updating the Guidelines to better assist those countries is quite obvious.

Furthermore, during the last ten years many important events have taken place, which have considerably influenced our views on LA and what this term really means. To name a few, among many others:

- The fact that many cadastral projects are under compilation, both in the countries in transition and worldwide, in which most international experts are involved and more experience is gained out of that.
- The establishment of a closer cooperation between UN/ECE WPLA and sister organizations' activities, like FIG, INSPIRE, Eurogeographics and other regional activities brought international experts and country delegates even closer. Through the activity developed within those

organizations and the detection of pilot projects under compilation, not necessarily in establishing cadastral systems but also dealing with geographic information and spatial data management and information sharing much useful input for the upgrading of the LA Guidelines can be derived.

- The work accomplished through all the UN/ECE WPLA workshops and task forces in the meantime is a rich source of information about the recent considerations and the new trends in the field.
- The tremendous expansion of Information technology, satellite communications, WAP technology and the new opportunities created by Internet as a delivery and marketing platform.

Today technology not only allows more effective data production but also opens doors to more innovative product-development and supply. Data exchange and linkage between public institutions holding different spatial data can yield considerable benefits. It is a great advantage for citizens and for business to have a one-stop, on-line access to public information about land. Spatial Information Management (SIM) plays a major role. (UN/ECE 1999a, FIG Com3 Athens 2000), and experts in LA and SIM should work together to consider priorities for the development of Spatial Data Infrastructures (UN/ECE 2001).

- The broad use of GPS, digital photogrammetry and orthophotos in establishing cadastral maps and the emerging activity in developing 3D Cadastre bring new approaches to the technical matters of LA.
- New emerging legal issues remain to be solved, such as those related with the e-commerce, e-services, and copyright protection against digital violation of intellectual property rights.
- The better recognition of the importance of the Cadastre as a tool for good Land Administration, for the social stability, the improvement of the Land Market and the sustainable economic development in general.
- The globalization and the wide spread of the free market and the development of pan-European and international markets.
- The increasing role of the private sector, and the balance that has to be achieved between public and private sector (UN/ECE 2002).
- The increasing need for more cost-recovery approaches and other financial issues, like data and services pricing policies, free labor mobility within Europe.
- The need for better education and capacity building and for developing advanced quality control regulations, together with the development of a better theoretical approach in LA aspects.
- The combined European regional approach that recently emerged in most fields for the harmonization of the public administration, among them the mapping agencies. Most western NMAs are cooperating in ambitious pilot projects for the creation of common data sets moreover many of the NMAs of eastern and central Europe are introducing costly changes now in the longer-term interests of compatibility within the European Union. This will finally affect all Land Administration and Cadastral issues.
- The new approaches in mass valuation and land taxation (UN/ECE 2001, UN/ECE 2002b).

All these factors have brought many changes recently. Besides the very fundamental step of implementing a cadastral (or LA) system, it is the urgent need for developing a more sophisticated Land Administration policy that almost every country faces, together with the need for a sustainable economic growth, that some level of upgrading of the existing LA Guidelines will also be soon inevitable.

The most common question is always “What exactly is considered to be good Land Administration?” The social and economic general benefits of Good LA are well described (UN/ECE 2000b), but what the term “Land Administration” includes is not so clear. Although every country has already developed a great deal of activity, this proves to be difficult to answer concisely and comprehensively. It is like asking, “What is a European?”

Land Administration activities already developed are as varied as the history, cultures, economies, and politics in which they operate. Each jurisdiction uniquely adapts LA arrangements to accommodate its own conditions; nevertheless there are common elements and issues that all systems must address.

4. What Revisions? Some Proposals

For a land market to work efficiently it is essential that the following three factors should exist:

- a *land registration system* to work for the definition, security and sound administration of the property rights which will provide a *simple and inexpensive transfer of property rights*,
- confidence to be provided to investors through *clear, transparent and consistent land policies that operate within a stable institutional framework*, with a minimum set of restrictions on property usage consistent with the common good, and
- a financing mechanism meaning availability of *capital and credit*, (Dale, Baldwin 2000).

The updating of the LA Guidelines could focus on the first issue, while a great deal of attention should also be paid to the following two issues so that the guidelines will be upgraded to meet the current needs of as many countries as possible.

The revision of the LA Guidelines should focus on the *development of clear, transparent and consistent Land Policies*, which will operate within a stable institutional framework. Politicians should realize that this is the only way to develop a healthy and sustainable Land Market and to provide confidence to the land investors. The land policy applies regulations and taxes on the land and its use; the use of land and its restrictions directly affect the market values. In the case of a weak land policy, the market values will be influenced by a number of temporary and sometimes unexpected factors and finally the land market will reflect these unstable conditions. Once the land policy is set

up, adequate and stable, and a proper valuation system is developed, the banking system will support more easily the land market. This is an issue to be treated more by the specialists and experts involved in the revising of the guidelines in the future. (HKIS 1997, IVSC 2001, UN/ECE 2002a, UN/ECE 2002b).

This paper will focus more on some general issues for the updating of the LA Guidelines related to the first aspect, *the land registration system, its implementation and operation*. Although most important relevant issues have been addressed, it is noticed that some of the most fundamental ones are more obscure. Due to their crucial importance those factors should be emphasized and enriched through the recently gained experience in the new version.

It is clear that in most cases deficiencies in Land Administration arrangements are due to institutional (including management) rather than technical problems (Dale, McLaughlin 1999, UN/ECE 1996b). The chapter "Institutional Arrangements" needs most of the updating.

According to recent experience, the most threatening factors against the success of the implementation of a LA system are: the lack of adequate and stable *land policy* (de Soto 2000), the lack of *clear objectives* for the implementation project, the *time* needed for its completion, the lack of a *cost-benefit analysis* (Dale 1998) and the lack of special *knowledge / education* (UN/ECE 1998). An attempt to better identify them is made below.

4.1 Land Policy

Through a study made in developing countries like Peru, Philippines, Egypt, Haiti, but also in some countries in transition, it was found that due to bureaucracy and restrictions "*it is very nearly as difficult to stay legal as it is to become legal*" in issues related to land market, formal real estate property transactions, illegal settlements, and illegal change of land uses. In fact it is legality that is marginal; "extra legality" has become the norm. The value (mainly the building cost) of the illegal buildings in those countries, a "dead asset" that has been locked out of the market economy (land registration, transactions, mortgages, land taxes, etc), is estimated to be approximately 10 times the value of all assets owned by the government. (de Soto 2000). This fact is considered to be a great hindrance to the development of the economy. Similar cases, at different scales maybe, can also be detected in more developed countries (UN/ECE 1996a). It is a political decision for the governments whether they are going to integrate these resources into a western type system or continue the present situation. In each country there are different issues to be addressed, which influence the land policy. In Greece, for instance, it is the protection of the coastline, the forest-land and the archaeological sites, together with the monitoring of land uses and physical planning, such as: illegally subdivided land into smaller, privately held parcels; illegal conversion of land use especially agricultural land into housing; illegal buildings on privately owned land by breaking urban and physical planning laws; illegal extensions of buildings; and "squatting" on state owned

land. It is a political decision to define a balance between the restrictions applied on the land and its uses and the sustainable development of the land market. Once land policy is fixed, then comes the important issue of coordination of all public agencies involved. Frequent changes to LA laws may hamper the progress of the projects (UN/ECE 1999a). These aspects should be clear before any attempt to implement a LA System is made. It has to be clear that a LA system itself will not solve any problem, but it will serve as a tool to a coordinated inter-governmental effort to create motives and find solutions to the existing problems.

4.2 Clear objectives for the implementation of a LA System

Defining the objectives of the project is also a critical step. It is in this step that political decisions have to be made, about the character of the project, its scope, its users and the administrative structure. There are questions of criteria and priorities. Will it be multi-purpose? Will it focus on the protection of state land and environmental monitoring? How will it be privatized and how will it include privatization of land and at what level? Will it develop a cost recovery policy? Will it focus on the development of Land Market? Will it focus on the users needs and who are the main users? What do we have and what is missing?

A LA system deals with: ownership, value and use of the land. In countries in transition for example, it is clear that they had a land uses registration system existing since half a century ago, what they needed was a LA system to privatize state owned land and to register property rights. In other countries there is already an existing registration system for the security of rights in real estate and land tenure in operation and the missing part is systematic land use planning and mapping and/or land valuation. It is obvious that the priorities should be given to the most needed parts.

Once the final political decisions are made the strategic plan should be scheduled and followed strictly and no political interference is appropriate. *Mixing up political and technical criteria at every step of the project and also mixing up policies similar to those of the socialist command style economy with the demands of the modern market economy during the implementation process is frequently creating confusion and contradiction and must be avoided.*

When it happens, it is *unfair* for every participant involved: politicians, LA experts, various professionals, such as surveying engineers, lawyers, registers, notaries, and the citizens, since all of them have an interest to achieve a successful and sustainable result.

4.2 Time required

In the executive summary of the LA Guidelines, page 2, it is stated:

"Introducing a new LA System, including the implementation of formal land information registers, is a huge and time-consuming process. The importance of solid investigations and thorough planning cannot be underestimated...legislation, organization and funding are frequently more

complex to solve than technical issues” and “...data content should initially be restricted to what is actually required to satisfy high priority user needs...high geometric precision is often unnecessary for LA. The possibility of applying low-cost surveying and mapping techniques should be investigated”,

One of the most critical factors for the success of the implementation of a LA system is the “time” required. It can be the worst enemy against the success of any project. The complexity of the work and the broad variety of its benefits, most of them intangible, but all over emphasized in all LA documents, in combination with initial enthusiasm for the project frequently lead to a very ambitious work plan and finally to an extremely time-consuming process. The possible consequences are:

- decrease of public acceptance, since people need to see tangible results (UN/ECE 2001)
- difficulty in checking, handling and updating of a huge amount of detailed data (Potsiou et al 2002)
- difficulty in the continuation of the funding.

Also, due to the long implementation period political changes may occur, a very common fact in all democratic societies. New government or management tries to apply new ideas or methods to achieve better results. The actual result is often to delay to the project even further.

No matter how big the ambitions may be and what the available funding may be, good management should stick to a strict, short term action plan, with frequent tangible results, for the collection of the core data absolutely necessary for the particular target and the implementation of an operating system within the shortest time period possible. Only after that achievement should actions for the improvement of the system follow.

4.4 Cost-Benefit Analysis

On page 31 of the LA Guidelines, it is stated:

“All too often there has been little or no analysis of the costs and benefits of the old system and no quantitative assessment of the costs and benefits of new approaches. In many cases prejudice rather than careful assessment has indicated the way forward...Cost-benefit analysis is a support tool for making judgments and for setting priorities”

This is a statement of significant importance especially for projects under compilation in a market economy and it should be stressed that a careful analysis and evaluation of the available options is a must. Assuming that the objective is well defined, the cost-benefit analysis will prove whether such an investment should be made and which is the most appropriate method for its achievement. This is for the benefit of the politicians, the professionals involved and of the citizens, since it brings more transparency in the job (UN/ECE 1999a).

“Calculating benefits is even more difficult than evaluating costs. A price can be put on some activities such as improved services, quicker and cheaper

conveyancing or the more effective collection of taxes thus bringing in more revenue to Government. Some will be “one-off”, while others will occur on a continual basis. Some are not directly measurable in cash, such as better environment...some may arise only some years after the system has been introduced”

This statement is true but there are some obvious areas where a cadastral system could have immediate and tangible results. During the recent reform of the Hellenic Cadastral project it was announced that priority should be given to cadastral surveys in urban areas. Obviously the reason is the fact that urban land markets are functioning better than rural land markets and the revenue derived there will be higher. This revenue will be both “one-off” by the issuing of the title and on continual basis through the transactions. But in fact the transactions revenue and the taxation is already collected through the existing system (Potsiou 1998). This is a step in the right direction yet the radical step will be made when priority will be given to the areas with “informal” settlements. It is in those areas where benefits would be appreciated by both sides: the occupiers of those real estates and the state. Such a priority could serve the monitoring and control of informal settlements and secondly give life to “dead capital”. Assuming that all additional necessary LA actions will follow, the occupiers will be offered the opportunity to become legal and enjoy the advantages of mortgaging and legal transfer of their property and the state will benefit by increasing its revenue through registration fees, taxation, and transfer duties, part of which is missing now. In 1983, it was estimated that there were approximately 450.000 illegal buildings in Greece. The owners of these buildings were directed to submit a declaration and to pay “registration fees”. Yet today only 10% of the submitted declarations have been processed and finally registered as formal. All these buildings are registered to the Ministry of Finance and owners are directed to pay taxes. The rest are still pending. It is roughly estimated that by now the number of informal buildings is 1.600.000 (approximately the 2.7% of the total number of buildings in the jurisdiction).

“Cost sharing arrangements may need to be worked out...” (UN/ECE 1996a).

This issue is closely related to issues dealing with Public-Public cooperation. An effort should be made, when relevant public agencies like the Ministries for the Environment and Physical Planning, Development, Justice and Finance have to collect similar data to have a *cost sharing* and coordinated approach. (UN/ECE 2002b).

4.5 Education

In many countries LA is still not considered an issue of significant importance and the surveying engineer has a very limited role to play (Potsiou 1997). In many countries, also, the so far education in surveying and cadastral topics has been focused mainly on geodesy, mapping, and other technical skills. But contemporary LA requires professionals with knowledge of legal matters, LA and management in general. It is *“very important to review the curricula of*

schools in surveying’ to meet the needs of the situation of the contemporary free land market (UN/ECE 1996a, UN/ECE1999a).

Education and theory in Cadastre and Land Administration aspects needs to be developed in general (van der Molen 2002). Especially there is a need for better definition of the role of the surveying engineer as a Land administrator. It has to be emphasized that the lack of knowledge and good education affects the success of any project. Training should be undertaken preferably before projects are started (UN/ECE 1999a). But the free movement of goods, services and people within the European region is encouraged (UN/ECE 2001). Due to the complexity of the subject, besides the international experience, it is necessary to have knowledge of the history of LA activity in each country, and an understanding of politics and customs. The contribution of international experts is valuable but it is important for each country to *create its own experts*.

In addition, there must be continuity in education between universities and professional training centers.

On-going education, capacity building, staff training and management training is needed, especially in general skills like Law, economics, management and human and ethical aspects of LA, and user oriented approaches. (UN/ECE 1998, UN/ECE 1999b).

5. Conclusions – Recommendations

The UN/ECE “LA Guidelines” are of great value and will continue to serve their original targets. Yet, there are plenty of reasons for their updating and upgrading such as: the new requirements; the general need for improving awareness, knowledge and experience sharing in other countries; the compilation of guidelines in the field of LA with a broader scope; and the general need for facing the demands of the spatial information management for the sustainable development of the real estate market.

The new version should take into consideration the results and the progress of ongoing projects and should include or have a reference to brief description of their data (extent, cost, time, coverage, policy). It should also have detailed references to recent literature and work accomplished within UN/ECE, FIG, Eurogeographics, INSPIRE and all relevant activities.

Finally, the new version should clearly state the crucial factors that influence the success of any LA project and should, despite the variety of cultures, history and politics, encourage strongly the harmonization of LA theory and activities in the various countries along some general framework.

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BIOGRAPHICAL NOTES

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1992-96 and 1996-2000 elected member of the Bureau and Treasurer of the Hellenic Society for Photogrammetry and Remote Sensing.

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1998-2001 chair of WG3.1 of FIG Com3 (organized the Athens 2000 Com3 annual meeting)

Since 1999 national delegate of the Technical Chamber of Greece in FIG general assembly

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