

The Necessity for Nation- wide Public- Public Coordination for Effective Land Administration

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Abstract

The aim of this paper is first to outline the necessity for better intergovernmental coordination on Land Administration (LA) aspects, and second to give some general recommendations, for the common benefit, for the implementation of successful land policy in a more cost-effective way.

By coordinating the main relative activities, responsible governmental organizations can avoid the duplication of effort and develop an integrated policy. Through that, they can have a clear picture of all land management issues and they can jointly focus towards resolving the problems and applying good land administration, which promotes an active Land Market and productive land use.

Although it is clear that the organizational structures and LA priorities differ widely from country to country, an analysis of some major Hellenic LA aspects is given by example, both to emphasize the achieved progress and the benefits derived from some “best practice” examples, but also to outline the still existing great difficulty in the Public-Public coordination, in general. Some considerations derived from the Hellenic experience, and some recommendations of common interest are shared.

1. Introduction

This article is intended to activate and urge politicians, state employees and public agencies and organizations by providing greater understanding of the necessity for closer and more systematic intergovernmental coordination and cooperation at all levels of public sector, so that successful LA can support the implementation and maintenance of Sustainable Development effectively.

A large number of projects and public works, related to LA, are under development in many countries within the European region, but also worldwide. These projects and initiatives are under the responsibility of various public agencies. Despite the common sense, and the vertical governmental supervision and coordination, due to several reasons, in many cases a lack of systematic "horizontal" coordination among "sister" projects developed by relative organizations is noticed.

At the first part of this article, a brief outline of LA content and some of the reasons that hinder the coordination among these activities are mentioned. An emphasis to the *urgent need for better coordination*, at all levels of public sector, and to the *tools that can support it*, is given.

At the second part, the *difficulty* in organizing effective inter-ministerial cooperation and generally the coordination of all LA interventions within the public sector and the Local Authorities in everyday life in Greece is mentioned, by example. The *main LA initiatives* and the “*hottest*” LA aspects to be faced in order to achieve sustainable land management are given. Some considerations towards the possibilities for establishing sound coordination are shared and the best practice examples are highlighted.

At the third part, a *brief outline of the benefits of having a reliable LA policy in place, based on coordination of all governmental activity*, is given, together with some *recommendations of general interest*.

2. The Necessity for Nationwide Public-Public Coordination

Land is the most important natural resource, without it life on earth cannot be sustained. The role of land in the economy of each nation is of great significance. At least 20% of gross domestic product (GDP) can come from land, property and construction. Good stewardship of the land is essential for present and future generations, both from an environmental and from an economic perspective. *Land management* is a very complicated process, which involves decision-making and contribution of both the public and private sector and the participation of several professional specialties, as well.

According to the ECE Guidelines on *Land Administration* (LA) (Economic Commission for Europe 1996), LA refers to the process of recording and disseminating information about ownership, value and use of land and its associated resources. *LA includes, inter alia, cadastre, land registers, land consolidation, valuation, spatial information management for a sustainable management of land resources*.

Cadastre, in the majority of European countries, contains different registers, each under a different administration, although the registers are operating partly or wholly by the Government in each case. In many countries part of the job is commissioned to the private sector, such as: the field surveys, the maintenance and operation of cadastral offices, the development of cadastral information systems, etc; in other countries the job is carried out by government or local public agencies. All countries need to determine the ownership, the value of land and property, and other attributes of land, and to monitor and manage their use so that the value of these assets may be enhanced. The security of tenure and the development of a mortgage market are fundamental issues for a functioning economy and major aspects of LA. In addition, Cadastre in digital form can serve as the basis for plenty value added LA services.

The real estate property assessment and valuation systems, the management of land resources such as: forestry, soils, agriculture, the protection and management of the coastal zone, the formulation and implementation of land-use policies and the documentation of land-use restrictions, the protection and management of state lands, the monitoring and decrease of informal

settlements development, the support and improvement of regional and urban planning development, and the environmental impact monitoring, are LA aspects closely related to Cadastre, yet under the responsibility of other organizations, Ministries and public Agencies. In order to achieve effective LA, good coordination and both vertical and horizontal flow of information is necessary among and within all relative responsible agencies.

Quite frequently, those organizations have priorities, policies and projects that are almost independent or even vary considerably with each other. In many cases duplication of the work is noticed, or in some cases the activity of one agency delays or seriously affects the activity of another. Despite the good will, the coordination is frequently not achieved.

The main reasons for the lack of strong cooperation and coordination are quite common in every country. To mention some of them:

- existence of *different emergency priorities* of each Ministry or organization,
- usually, existence of *extremely pressing time schedules*,
- *cultural or mentality issues* (such as: lack of willingness for cooperation among public employees of different organizations-extra load, differing perception of the meaning of "competition", "business thinking", "cost-recoverability", etc among agencies, not good use or easy rejection of existing data),
- *copyright issues*,
- *financial issues*,
- *technical and practical issues* (such as: lack of information technology, use of incompatible methods and datasets, ignorance of already existing information, lack of National Spatial Data Infrastructure, etc),
- *lack of relative legal framework*, that will rule the coordination responsibility
- *educational issues*, lack of specialized knowledge and experience, and even
- *political issues* (such as: lack of strong political will for applying effective LA, lack of knowledge among politicians about the benefits of using new technological developments to support LA, short term political choices according to specific circumstantial events, or the fact that Ministers even within the same government feel more or less like strong political rivals and have strong political interests and ambitions, which can make the cooperation and sharing of the fruits of success very difficult).

It is estimated that approximately 80% of the public sector information has a spatial reference. *Appropriate spatial information is vital for LA*, whether that be for managing the rapid growth of cities, guaranteeing ownership and securing of tenure, developing sustainable agriculture, supporting property taxation, protecting state lands, or protecting the environment. According to the international experience, the information requirements involve the integration of a number of different types of up-to-date, reliable and usable data from diverse sources, tools to support the transformation of data into understandable information for decision makers, and rethinking of both inter-

organizational and intra-organizational relations in order to improve the use of common data and the reuse of data.

Through common spatial referencing standards enforced by a *National Spatial Data Infrastructure (NSDI)*, such data can be interchanged and integrated to encourage a more holistic approach to decision making.

NSDI is becoming a very useful tool for handling spatial information derived from various sources and can well facilitate and support the coordination of the various public agencies responsible for LA, and the monitoring of the changes on land. It can be the "land information engine" to support both vertical and horizontal flow of information. (Foster et al 2001)

Very few countries, worldwide, have reached the stage-institutionally, legally, administratively and practically- of establishing a Nation-wide infrastructure to support the coordination and cooperation in technical issues, like data sharing, between all agencies of public and private sector, which produce or use spatial data; and also, very few countries have reached a stage of broader coordination in all LA aspects.

The results of this lack of coordination, among others, are:

- *great overlapping in LA works*
- *failure of ambitious LA projects or serious delays of progress*
- *increase in the necessary cost and time*
- *low productivity of public organizations*
- *serious impact on Land Market*
- *extra trouble, disturb and inconvenience to the individual citizen*
- *serious political impact*

Very often, lack of coordination is such a common phenomenon, that, those results are considered by citizens as *a necessary evil*. Even public agencies involved often share this public perception of *unnecessary inconvenience and waste of money*.

The necessity for organized inter-governmental coordination should be stressed and considerations, methods and ways that help to that direction should be shared.

3. Public-Public Coordination on Land Administration aspects in Greece

Since the beginning of the 20th century, a considerable number of Land Administration initiatives, projects and acts has been applied in Greece, which significantly influenced the economic and environmental development in Greece, and actually changed the Hellenic State and gave it its present status among European countries. During that period, plenty of serious efforts have been made, at higher inter-governmental level, to develop a fair land policy, and to balance the exploitation of environmental resources, the direction of investments and the economic development with social policy and environmental protection.

The observation of the major Land Administration interventions shows, that so far the developed land policy has been based mainly on initiatives at high ministerial level. Among all, the initiatives of the Ministry for the Environment, Physical Planning, and Public Works played a leading role. The coordination for the applied land policy depends, as in many European countries, mainly on the Ministerial Board and is ruled by the legal framework, which is introduced each time by the responsible Minister and voted by the Hellenic Parliament.

Yet, in action, for the individual citizen it is more than obvious, that there is still a lack of coordination among all responsible public agencies for Land Administration issues. The coordination and follow-up of thousands of public works executed everyday by the utility companies, public authorities and local authorities is usually impossible and people are repeatedly disturbed; this is a very common problem in many countries (Breemersch 2002). The obligatory declarations demanded by various agencies (Cadastre, Ministry of Finance, public services and utilities, Ministry for the Development, etc) of the citizens' real estate property frequently, creates a lot of mistrust about the efficiency of public administration and a lot of complains about governmental bureaucracy. There is usually plenty of conflict, which ends to the court, between the land owners on one side and the urban planning services, forest authorities, archaeological services on the other, about unexpected interventions or restrictions applied sporadically due to the lack of a coordinated and fair LA policy, that seriously affects the Land Market and the investments on land.

The most characteristic recent example of the existing general difficulty in coordination between various Ministries and other public agencies, though not exactly for applying a LA policy, was noticed and strongly criticized by the media during the first two years of the preparation period of Greece for the coming Olympic Games, which will be held in Greece, in the year 2004. During that period there was such a difficulty in cooperation and coordination of the responsible public agencies for the construction of the necessary big public works, that finally the Prime-minister decided to undertake the task of close coordination and supervision himself personally. The results of this initiative, so far, have proved that this case can now be considered as a "best practice example".

3.1. Comments on Main LA initiatives and Major LA issues in Greece

Sporadic or local LA initiatives to satisfy high-priority special needs and requirements have been applied in a step-by-step approach to develop Land Administration in Greece. Such initiatives was the "land management project in the city of Thessaloniki after the big fire, in the year 1917" and the "implementation of a cadastre of vineyard areas after the crisis of the raisin", the basic agricultural product of Greece, in the year 1930. At that time, both experience in LA and technological progress were very limited and, after all, those cases required immediate action, so little attention was paid to coordination with other public services.

The big nation-wide LA projects applied in Greece were, (Badekas 1984):

- The “*distribution of public lands*” to the beneficiaries, the “*expropriation, subdivision and distribution of large agricultural manors*”, and the implementation of the “*Transfers and Mortgages Registration System*” for the security of land tenure and the development of a land market, which have occurred in the 19th century. These projects had a great political impact and have created the general picture of the Hellenic land, the fragmentation of rural land and its land-use. Obviously, those years such activities were made under a very weak public administration system, from which forward thinking and sophisticated coordination was not expected.
- The *development of Physical Planning and Urban Planning policy, and the design and definition of formal urban areas, by the relative Law of the year 1923*, made by the Ministry of Public Works
- The *Land consolidation* projects, which started in 1953, and aimed mainly to a reform of the fragmented rural land. There are two different types of rural land consolidation: the obligatory and the optional. Between 1953 and 1990, land consolidation projects covered 8,000 km² of rural land. Additionally, there are some urban land consolidation projects, which aim to reform the urban land parcels
- In the year 1970, started the project *for the implementation of a nationwide cadastre*, with the production -as a first step- of cadastral tables through simple information and cadastral maps compiled by simple copying of enlarged air photos. The cadastral maps were analog, vector maps of a scale of 1:1,500 for the urban areas and 1:5,000 for rural land. The cadastral tables were in digital form. Although until the year 1974, 5,800,000 land parcels have been registered covering 28,700 km², which represent approximately the 22% of the jurisdiction, the project was abandoned and left unfinished. During that time has the new era of technological developments started. Yet, the initial benefits of this development had very little effect to the public administration.
- The *Cadastre of forest areas 1978*. Forest lands in Greece cover approximately 8,400 km² (64% of the jurisdiction) and belong mostly to the State. Efforts for establishing a forest inventory have started as early as 1938, but real work began in the year 1976. This work consisted of the demarcation of the forest lands on air photos taken in the ‘30s, ‘40s and ‘70s, the production of forest maps, at a scale of 1:5,000, and the examination of disputes by the courts. Until the year 1987, when the project was stopped, 2,000 km² have been mapped and 20,000 disputes have been submitted to the courts. This large volume of disputes made the courts unable to finish the job, and the project to stop. Today, the forest maps are again produced through the “National Cadastre” project. These maps are still at the compilation process. The environmental protection of forests both from the big fires, especially during summertime, and from informal building either on state owned forest lands or on private owned forest land is still a hot issue, which creates a lot of conflict between the citizens and the state. The lack of clear definition of the forest lands boundaries and the strict restrictions applied create a lot of compromise between the owners and the public employees and finally a lot of cases still end to

the court. This creates a lot of mistrust to the Ministry of Agriculture and affects negatively the land market.

- The project named “*Urban Planning Implementation Act*”, which aimed to the further development of formal urban areas and to a general urban planning reform, of the Ministry for the Environment, Physical Planning and Public Works, which started in the years 1983. 600km² of urban and sub-urban land have been completed and formal diagrams were compiled at a scale of 1:1,000. Field surveys were again compiled from scratch, but at that time many private offices that had undertaken the job made good use of digital methods and their deliverable products were in digital form. The project also included the demarcation in the field of the urban units; this process is still in progress.
- The *registration of vineyards and olive trees*. Since 1987, the Ministry of Agriculture under the guidance of the European Commission has tried, as happened in several European countries, to create an inventory of the vineyards and the fields with olive trees. In Greece there exist 1,650 km² of vineyards and 8,000 km² of fields with oil trees. The inventory, besides the mapping, refers to the identity data of the farmers exploiting those fields, but not the owners.
- The project for the implementation of the “*National Cadastre*”, by the Ministry for the Environment, Physical Planning and Public Works, in the year 1994 (Potsiou et al 2001), which is under development. This last initiative is expected to secure the land tenure and to work as a spatial information system that will serve as a tool for facilitating the application of a broader LA policy and for developing the Land Market. Yet, the Land Market is also affected by a number of other LA issues besides the security of land tenure, which should be fixed in order to have some significant results. In fact, this project is the most important LA initiative in Greece, recently, where serious Public-Public coordination is needed. The availability of all modern Information Technology, the large cost and time demands require the best coordination.

Despite the great effort, the good will, the available information technology, and the initial proposals for good coordination of activities, few issues can be considered as really successful coordination examples. The public administration was not mature enough. For the compilation of the necessary cadastral surveys all over the jurisdiction, no existing data collected before, through the previous LA initiatives, i.e. the cadastre of 1970, the urban Planning Implementation Act or even the maps and diagrams compiled for land consolidations and distribution, etc were used. All cadastral surveys for the National Cadastre project -even in the area of the Dodecanese, where cadastral offices are operating for many years- are compiled from scratch. No coordination was also with the contemporary project of the Ministry of Agriculture for the inventory of vineyards and olive trees (Badekas 2000). The reasons for that are mixed (technical, financial, cultural, etc) and never clearly clarified.

Despite the fact that originally a *new and independent public agency*: the Hellenic Mapping and Cadastre Organization (HEMCO) was

established for the coordination, compilation and operation of the National Cadastre, in fact, all coordination and compilation work so far is made by the Ministry for the Environment, Physical Planning and Public Works. The other relative Ministries or Public agencies had very little collaboration and responsibilities.

On purpose, for political reasons-government did not want to connect the project with taxation-, there was no coordination with the Ministry of Finance and this lack of coordination resulted to a duplication of almost similar collection of data. The only coordination examples is the cooperation with the Ministry of Justice, but even this was obligatory and many times was restricted to a very primitive level. For example, no cooperation with the existing system of "Transfers and Mortgages" was achieved for the acquisition of all legal data registered there was made, for financial reasons-it was estimated that this cooperation would cost extra money for hiring new people so that the work will not be piled up. Instead of that, all citizens, which had legal rights in real estates of the areas under cadastral survey, in fact already registered in the previous system, were asked to submit declarations. This meant extra time and cost enforced to the individual citizen due to the weakness of public administration to cooperate efficiently and coordinate its activities. For the continuation of the cooperation with the Ministry of Justice, in many cases government was pushed to accept cost-consuming solutions for the "benefit" of the project! This is an achieved level of coordination but it cannot at all be considered as "best practice" example. The coordination with the Ministry for Agriculture, for the compilation of Forest maps, could be considered as a better one. Also, there was a kind of cooperation with the Telecommunication Authorities, which purchases some cadastral data from HEMCO. So far, no other cadastral data exchange is known.

- The *management of coastal zone*. A very interesting LA program in Greece is the management of a narrow 10-60 m width zone along the coastal line. That zone has a very big economic, social and recreational importance and belongs to the State. Greece has a coastal zone of a length of approximately 16,000 km, which is almost the 52% of the coastal zone of Europe. For their protection and management, this zone must be demarcated, by a special committee, on maps, at a scale of 1:500.
- The successful development of the *nation-wide mass-land valuation system for taxation of real estate property*, by the Ministry of Finance in the years 1985-2000 (Potsiou et al 2002), which saved both the State and the people of a lot of a trouble and conflict. Yet, the Ministry of Finance is in the process of establishing the real estate property database, which is, as already mentioned, an almost overlapping activity with the "National Cadastre" project. The unpleasant issue is that the data of this project are still piled up, at the collection phase, and the agency is incapable to proceed with their editing.

Other, very important, remaining to be solved Hellenic LA issues, are:

- the *monitoring and control of informal settlements*. According to the Law of 1923, the Ministry used to define the formal urban areas

boundaries and prepare the urban planning plots, which were not applied to the field unless someone interested wanted to build a house. It was only then, that the urban planning plot was partially applied on the field, at the particular part, and a land parcel reform was made, to create proper plots on both sides of the roads. In the meantime this affected seriously the land market and created great deviations to the market values of the area. All land parcels, which were located within the boundaries of the defined formal urban areas, increased their value significantly. This led less rich people to purchase land parcels, which were not within the formal urban areas boundaries, but were situated in the surroundings and were much cheaper, but could benefit/or the owners hoped that they could do so, of the utility networks and the overall facilities of the city. So, gradually, and by the state tolerance as part of its social policy, a large number of “illegal” buildings were built. In the year 1983, during the effort to apply a more fair LA policy by the new urban planning reform and for the compilation of the new formal urban planning plots for the further development of the existing formal urban areas, it was estimated that there were approximately 450.000 illegal buildings in Greece. The owners of these buildings were asked to submit a declaration and to pay “registration fees”. Yet, until today, only 10% of the submitted declarations were processed and finally registered as formal. Also, all these buildings are registered to the Ministry of Finance and owners are asked to pay taxes. The rest are still pending. It is roughly estimated that by now the number of informal buildings has been 1.600.000.

- the *development of a new Physical Planning policy*. In many cases the up till now policy of the responsible Ministry is applied step-by-step and only to put restrictions when some areas are developed rapidly, which usually are not strictly valid or are conflicting with the local authorities activity and ambitions. In the year 2002, the Ministry for the Environment, Physical Planning and Public Works tries to define Regional Planning projects for each one of the 13 Prefectures of the country, which will contain broader zones proper for the future urban development, and define the prerequisites and the possibilities of building formal settlements. If this policy will be successfully valid, stable and reliable, then it could positively and more fair affect the land market within those area zones.
- The fair management of other *restrictions on land* such as the restrictions *applied by the archaeological service*. Archaeological service has the right, by the Law, to apply any kind of restrictions on the land parcels –even to forbid any kind of agricultural use- for large time periods. After a long period of restriction without expropriation, owners can apply to the court and claim for a release of the restrictions, but even if they are justified, next day archaeological service can again apply new restrictions to the same land parcel. This policy creates a lot of problem to the owners of this kind of land, especially when they are asked by the Ministry of Finance to pay taxes for those ownerships.

- The *monitoring and security of Public-State owned land*. The establishment of the cadastre is expected to facilitate this process. The Ministry of Economics and the public company for Public Lands and property manage 176,000 real estates, belonging to several public agencies. Although 50% of those real estates are illegally occupied by citizens, the company tries to map them, at a scale of 1:5,000.

As it is clear, all results mentioned above due to weak coordination are also met in the Hellenic situation. Many important nation-wide and ambitious projects were finally stopped due to insufficient LA planning, much of overlapping is still noticed, increase of the projects' cost is an obvious result, disturb of the citizen is a common phenomenon, low productivity of public sector, in many times, is caused by lack of coordination and correct planning, and all these result to a political impact and to a weak land market. It is more than sure that many other European countries face similar issues.

4. Recommendations and Potential Values and Benefits of a Reliable LA based on Coordination

Good and fair LA helps to promote economic and social development in both urban and rural areas. In the 21st century, governments and administrators should pay much more attention to "coordination" in LA. Based on coordination, LA can be highly improved. Coordination should be achieved at all levels: technical, financial, legal, administrative, social or political.

In order to achieve better coordination some of the following steps should be made:

- *Adoption of new technological developments*. It is worth realizing how easily technology can radically change the quality and culture in LA. Coordination via Internet has become "reality"; all public agencies should take advantage of Web techniques (Breemersch 2002).
- The *development of a NSDI* allows all relative to LA public agencies, and other potential users, to use spatial data as an infrastructure key asset and thus to avoid time -and money- consuming duplication of work in data capturing. Public agencies are able to combine data from different sources, share spatial information, develop a spatial information market policy for cost recovery purposes, improve the cooperation with potential users and the private sector, develop the e-market and the value added services. LA data actual as well as historic, are made accessible and available for specific physical planning studies, agriculture and environmental monitoring. (FIG 200)
- *Realization of the urgent need* for coordination and more *education* both in LA aspects and Geoinformatics can help the coming generation to work towards the right direction and the public administration to become mature and responsible enough for such initiatives
- Efforts should focus to *Local coordination* at city-wide and prefecture-wide level, *National coordination* but also to *Regional coordination* within Europe. The close Following-up of the developments within Europe and the knowledge and experience sharing among member

states can strongly help the coordination within each country (Potsiou et al 2001)

- *Institutional issues*, such as the formal *establishment of a LA coordination board* with representatives of the relevant ministries, agencies and users to examine the needs for information and to coordinate spatial information management activities and projects is recommended (ECE 1996)
- A *Legal framework* for the coordination, the definition of operational rules, the responsibilities and issues like copyright and pricing of data and services shared both between Public-Public but also between Public and Private sector should be made
- Important Land administration projects, which need much of coordination, should always have *realistic objectives and grow incrementally* through political, administrative and market needs.

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