

**United Nations Economic Commission for Europe**

**Европейская экономическая комиссия Организации  
Объединенных Наций**

**GUIDANCE AND GOOD PRACTICE FOR  
THE APPLICATION OF FEES AND CHARGES  
FOR REAL PROPERTY CADASTRE AND  
REGISTRATION SERVICES**

**РУКОВОДСТВО И НАДЛЕЖАЩАЯ  
ПРАКТИКА ПО ПРИМЕНЕНИЮ СБОРОВ  
И ПЛАТЕЖЕЙ ЗА УСЛУГИ КАДАСТРОВОГО  
УЧЕТА НЕДВИЖИМОГО ИМУЩЕСТВА И  
РЕГИСТРАЦИИ ПРАВ НА НЕГО**





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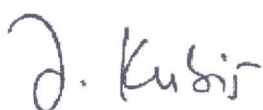
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## FOREWORD

Land administration and spatial planning are fundamental to sustainable economic growth and social cohesion as well as to promoting security of tenure of both urban and rural populations. In 1993, the United Nations Economic Commission for Europe (UNECE) included specifications in its programme of work to strengthen land administration systems in its member States. These devoted special attention to the countries in transition. One of the purposes of the endeavour was to exchange experiences on those successful practices that had evolved over a long period of time. Among these, the application of fees and charges was deemed an important mechanism to ensure the cost recovery of land administration systems. However, there were reasons to believe that successful implementation could only be achieved after the national land registration cadastre and registration were fully established.

In 1996, UNECE published the Guidelines on Land Administration (ECE/HBP/96), which defined land administration as the process whereby land and information about land could be effectively managed. The present Guidance builds on the findings of this previous study, and aims to contribute to the creation of improved systems of cadastral surveying of land and real estate units, data maintenance and land registration. The possibility of applying fees and charges in each of these activities are explored through the analysis of national experiences with cost-recovery mechanisms. The application of new technologies to facilitate the centralization of cadastral related activities, thus contributing to reduced operational costs, is also covered. Finally, the Guidance considers the influence of international directives in national legislations to promote the harmonization of land administration practices among UNECE countries. I hope that this study will lead to a better understanding of the benefits and challenges of applying fees and charges in UNECE member States and that, through better knowledge, UNECE will make a crucial contribution to national debates on public policy.



**Ján Kubiš**

*Executive Secretary  
United Nations Economic Commission for Europe*

## PREFACE

During the Working Party on Land Administration's fifth session in 2007, it was decided that a study of existing practices should be undertaken on fees and charges for cadastre and registration services in the United Nations Economic Commission for Europe (UNECE) region (ECE/HBP/WP.7/2007/10, para. 24 (b)). The present document is based on the outcomes of a questionnaire discussed during the fifth session that surveyed current government practices in the region (ECE/HBP/WP.7/2007/4). The document's objectives are to provide guidance and promote good practice in the application of fees and charges in UNECE member States. It elaborates on the questionnaire's findings on existing knowledge and country experiences by identifying existing trends and principles in financing real property cadastres and registers as well as the factors that influence the setting of fees and charges. The document argues that fees and charges are inextricably linked to cost management and recovery. All these variables are fundamental aspects of the sustainability of land administration in a country.

The study was prepared by Mr. Neil King (United Kingdom) under the guidance of and with contributions from the Bureau members of the UNECE Working Party on Land Administration consisting of Mr. Peter Creuzer (Germany), Chairman; Mr. Rupert Kugler (Austria); Mr. Sergei Shavrov (Belarus); Mr. Damir Pahic (Croatia); Mr. Vit Suchanek (Czech Republic); Ms. Chryssy Potsiou (Greece); Ms. Guranda Goglidze (Georgia); Ms. Margret Hauksdottir (Iceland); Mr. Bronislovas Mikuta (Lithuania); Mr. Magnar Danielsen (Norway); Ms. Isabel Gonzalez Garcia (Spain); Mr. Jon Atkey (United Kingdom); and Ms. Paola Deda (UNECE Secretariat). Further advice was provided by Mr. Ted Beardsall (United Kingdom).

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## INTRODUCTION<sup>1</sup>

The importance of land and property markets to encourage capital accumulation in the financial sector and promote economic growth has been widely recognized. Property registration and cadastral services are fundamental to the operation of these markets and can be implemented in many different ways. Some might be more efficient than others, but all systems come at a cost. It is crucial to balance the costs against the benefits, and thus the need to apply appropriate fees and charges is of major importance. Fees that are too high, or perceived to be too high, may actively depress a market. Fees that are too low may not recover enough costs to create, maintain or further develop cadastre and registration systems.

The Working Party on Land Administration promotes the development and implementation of sound land administration policies, including the administration of land management, the funding and charging of services and activities, and access to land information. In 1996, the UNECE publication *Land administration guidelines* (ECE/HBP/96) identified the factors that should be taken into account when developing legislation, organizations, databases, maps and funding mechanisms required to implement and maintain a solid land administration system, frequently referred to either as a cadastre or a land registration system.

Cost management and cost recovery are fundamental aspects of the creation and sustainability of land administration services. Fees and charges are inextricably linked to these variables; they constitute important means by which the operating costs of land administration can be recovered and are also a tool to promote and develop land markets. This holds true in particular in countries with low income levels.

Some of the recommendations for establishing or improving land administration systems included the requirements to subsidize the initial creation of land administration system and to fully recover these systems' recurrent operating costs.

In 2005, the 1996 guidelines were updated in the publication, *Land administration in the UNECE region: development trends and main principles* (ECE/HBP/140). This report reflected the changes that had taken place since 1996 and acknowledged how several countries have built new land administration systems and faced new challenges in relation to the sustainability of these systems and their maintenance. It describes existing trends towards unified land cadastre and registration systems and operations "partly or fully based on the principles of cost recovery" (ECE/HBP/140, preface, iv). The guidelines also stress that "each country needs to build and operate its own system within its own social, economic and cultural environment", and that the publication "does not advocate any unique solution because each country has a different history and experience" (ECE/HBP/140, preface, v).

To further refine its policy advice, the Working Party's Bureau decided in 2007 to undertake a study on fees and charges in the area of land cadastre and registry, and a questionnaire was developed by a Working Party team comprised of representatives from the Czech Republic, Norway and the United Kingdom, coordinated by the delegation of Lithuania.

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<sup>1</sup> The study was prepared by a consultant, Mr. Neil King, under the guidance of and with contributions from members of the Working Party's Bureau.

The questionnaire, with a total of 28 questions, was divided into five main sections:

- (a) Organizational and administrative issues (questions 1–7);
- (b) Financial and economic issues (questions 8–15);
- (c) Specific issues on fees and charges (questions 16–22);
- (d) Dissemination of information (questions 23–27);
- (e) Future plans (question 28).

The questionnaire was sent to 48 UNECE member States, of which 45 sent in answers (a response rate of approximately 94 per cent).

A summary report (ECE/HBP/WP.7/2007/4) was prepared and a presentation on the outcome of the questionnaire was made at the Working Party's fifth session (Geneva, 19–20 November 2007). Results of the questionnaire were considered in the development of the guiding principles on fees and charges as well as in identifying good practices in real property registration and cadastre.

## I. RESULTS OF THE QUESTIONNAIRE

### A. *General observations on the results of the questionnaire*<sup>2</sup>

*Organization and administration.* Public agencies or State enterprises are in most cases the sole responsible authority for the administration of real property registers and cadastral information. They are also responsible for some 59 per cent of the administrative activities related to cadastral surveying carried out in the countries. Private companies are responsible for 23 per cent and private-public organizations are responsible for the remaining 18 per cent. In roughly 94 per cent of countries, real property registration is a public monopoly. In some 33 per cent of countries, all three activities are administered by a single institution: in some 27 per cent of the responding countries, only the real property register and cadastral information are administered by a single institution. The performance of surveying activities is the responsibility of the private sector in 32 per cent of countries, and of the public sector in 26 per cent. Of the remaining countries with mixed responsibilities, the work is predominantly performed privately in 17 per cent of them, predominantly by the public sector in 12.5 per cent, and is roughly balanced private/public in the remaining 12.5 per cent.

*Finance and economy.* Roughly 50 per cent of respondents indicated that real property registers are financed from fees, 30 per cent received funding from central budgets and 20 per cent stated that registers are funded from a mixture of sources. One of the respondent countries obtains some 59 per cent of financing from the local budget. Cadastral information administration

<sup>2</sup> The percentage breakdowns given are rounded figures based upon respondents' numeric or specific replies. Written comments have not been taken into account. A small number of countries made revisions to their questionnaire responses, and these changes have been incorporated here.



is financed in 36 per cent of countries from fees, in 26 per cent from the central State budget and in 38 per cent from mixed sources. Overall, half the respondents said that their cadastral information administration is financed mostly from fees. Three countries have their cadastral information administration partly financed from local budgets. Some 33 per cent of countries have cadastral surveying financed entirely from fees, 12 per cent entirely from the State budget, and 20 per cent from a mix of fees and State budgets. The remaining 35 per cent have other types of funding, the majority from fees. The majority of land administration services in the participating countries are financed from fees, and the majority of payments return to the State budgets or to public institutions. In the case of cadastral surveying, some 35 per cent of the income derived from fees and charges is recovered by private companies.

*Cost recovery.* A more limited number of responses were received with respect to the amount of cost recovery achieved: 31 countries (out of 45) on real property registers, 28 on cadastral information and 24 on cadastral surveying. Some 68 per cent of real property registers achieve 100 per cent or more cost recovery, a further 16 per cent between 50 per cent and 100 per cent and the remaining 16 per cent less than 50 per cent. Some 43 per cent of cadastral information institutions achieve a cost recovery of 100 per cent or more, 14 per cent between 50 and 100 per cent and 43 per cent less than 50 per cent. Regarding cadastral surveying, some 52 per cent of the responding countries achieve 100 per cent cost recovery or more, 22 per cent between 50 and 100 per cent, and 26 per cent less than 50 per cent. In general, there is a high level of cost recovery in the respondent countries. The countries achieving at least 100 per cent cost recovery are those with the more mature systems and a longer history and greater experience in developing and managing the systems. Over time, more countries will achieve (or be able to achieve) full cost recovery. In general, real property registers are able to cover operational costs and be profitable. However, some agencies work on a full cost recovery basis but are not allowed to make profits or earn a return on investment. Cost recovery on cadastral information (with 57 per cent of respondents recovering less than their costs) is not as efficient as it is for the registers or survey activities. However, cadastral information has potential for growth as, for instance, the development of multi-purpose cadastres will allow the anchoring of additional information on base cadastral information (especially parcel-based geo-referenced data). Cadastral surveying is the activity where private companies are most involved, and market competition will guarantee that companies function at 100 per cent recovery rates. Under circumstances where full cost recovery cannot be achieved, the shortfall is funded by State or public funds.

*Fees and charges: administrative aspects.* All responding countries have legislation in place to regulate fees and charges. Most countries define charges by legislative regulation. In the majority of cases, the amounts of fees and charges related to real property registers and cadastral information are set by the Parliament or by the responsible government ministry.

In seven countries, cadastral surveying operates on the open market principle with fees generally based upon the amount of work involved and agreed between the contracting parties.

*Dissemination of information.* Real property register information and cadastral information, respectively, are supplied either: (a) free of charge to the public and private sectors in 32 per cent of the cases (for real property register) and 36 per cent (for cadastral information); (b) free of charge to the public with a charge to the private sector in 39 per cent of the cases (for register) and 36 per cent (for cadastral information); or (c) with charges for both public and private sectors in 29 per cent of the cases (for register) and 28 per cent of cases (for cadastral information). Some 80



per cent of the respondents provide for online applications for information. Of these, 71 per cent apply a charge for real property register information and 61 per cent apply a charge for cadastral information. Among those that charge for the service, fees are the same as for paper applications in 43 per cent of responding countries. The remaining 57 per cent have differing fees.

*Future plans with respect to fees and charges.* A total of 44 countries responded to this question, of which 11 had no current plans for change. In the remaining 33 counties, fees and charges were under review, some on an ongoing basis. In general, there appears to be a wish to balance cost against revenue, with some countries expecting to reduce charges and others needing to increase them.

## **B. *Questions and answers related to the questionnaire***

Responses to the questionnaire identify a number of issues that are fundamental in considering future practice with respect to fees and charges.

*Should real property cadastre and register information and data be provided to customers free of charge?* Some jurisdictions mandate the “free” supply of information under specific circumstances, but in general, responses concurred that customers should be charged. Generally, information is not “free” and always bears costs. Taxpayers should not carry a burden of payment if they have no personal interest or benefit.

*Should the real property register and cadastral work be performed by State-commissioned organizations, enterprises or agencies (monopolies), or under market conditions (both for private and public sector)?* The responses show that all real property registers (and 98 per cent of cadastral information systems) are administered by public authorities or State agencies/State enterprises, with some 94 per cent having a monopoly for the registration of real property. It is probable that the users care little about who performs the work, provided that their rights are protected and the costs are minimized.

*Should fees and charges for register and cadastre works be set (approved) by the Parliament, the Government, the ministries, the organization performing the works or the market (in the case of non-monopolistic activities)?* Most countries regulate fees through their administrations in consultation with the organizations involved in the work, and this seems to be a generally accepted practice. Several countries, however, have free market competition with respect to cadastral surveying activities.

*Should the real property registration fee be fixed or calculated on the basis of property value?* The recovery of costs seems to demand that higher value properties carry a higher fee on the simple basis that errors, problems or defaults with these properties carry a higher financial risk. The level of risk and the costs will depend upon the jurisdiction concerned, and the method chosen can only be their responsibility.

*Should money received from the real property cadastre and register work and services go directly to the State budget or to the budget of company carrying out the work?* Where the State directly funds services, it will normally expect the money recovered to go back to the State budget. It is clear from past experience that there are inherent inefficiencies in this approach. For example, it is easy for an organization funded by the State to “work to the budget” and show no incentive to cut costs or seek efficiencies. But even when organizations seek to make improvements, they may



not be allowed by the budget to do so. Almost all respondents stated that there are advantages in returning money directly to the organization or company doing the work. Such organizations, whether private or governmental agencies or enterprises, generally work out tightly controlled business plans that require them to recover their costs and make a return on investment. Where better efficiency means better financial returns, there are incentives to improve systems, provide new services and generally promote economic growth. This is more likely to happen when organizations have full control of their finances and can benefit from improved returns.

*Should income earned from real property cadastre and register works and services fully cover the costs of register works and services and/or cadastre works and services?* In general, with developed systems the user should pay the full cost. The question is less easy to answer for systems, still under development. First-time registrations can be very expensive, especially when extensive new surveys are required, and if costs are too high this may depress the market. In such situations, compulsory registration of large areas will invariably spread the survey and information collection costs, and reduce the unit cost of transaction per parcel. In this case, it is common then for costs to be subsidized by the State for first-time registrations. Cost-recovery mechanisms can be imposed for subsequent transactions. Such an approach requires careful accounting and good cost management.

*Should fees and charges for real property cadastre and register works and services be uniform for all (public institutions, private sector and population) or differentiated?* Fees and charges should be based upon the needs of society. In some countries, average salaries range around or below the United Nations poverty line. In such situations, it is sensible to keep any fees and charges for registration of property or land-use rights at a low enough level to promote universal registration and the consequential benefits (e.g. increased security of tenure). In general, fees and charges for a given task (e.g. registration of a property) should be based on the same criteria irrespective of the status of the entity involved. This is not the same as setting fees and charges for the supply of a service that may be used for commercial purposes. The Directive of the European Parliament and the Council of Europe (2003/98/EC) on the re-use of public sector information provides a useful guide. It allows for the exchange of information between public bodies for public tasks, but does not prevent the adaptation of a differentiated charging policy for commercial and non-commercial re-use (2003/98/EC, preamble, para. 19). Charges may be differentiated.

*How should register and cadastre information and data be valued?* The investment value of registers and cadastres to the country or community will be invariably larger compared to the operational costs of the organizations involved, and will have little relationship to the fees and charges for obtaining the information. Within the context of the land market, the value of information depends upon the level of demand for information and the quality of the information. In general, the more up-to-date and reliable the information, the greater the value.

*What future tendencies seem likely with regard to financing and the determination of fees and charges for these activities?* Many countries are taking a more business-oriented approach and requiring their registers and cadastres to recover all their costs from users and some countries are merging the operations under one responsible body. These trends seem likely to continue. Modern technologies are helping to both drive the unit cost of transaction down and open up the possibility of creating added value, thereby generating more financial returns. These improvements can occur in both the public and private sectors, and can help strengthen the overall development of land markets.



Administrations seem certain to maintain their rights to control the values of fees and charges.

## II. GENERAL PRINCIPLES ON THE APPLICATION OF FEES AND CHARGES

### A. *The cost of land administration*

The 2005 UNECE report on land administration (ECE/HBP/140) identifies a number of scenarios concerning financing of land administration systems that will be further elaborated in this chapter. These options probably reflect quite reasonably the range of situations found within countries affiliated with the Working Party. There are advantages and disadvantages to each of the options, but decisions on the best way to implement policies are society-specific and only the country concerned can decide what is most appropriate.

*No cost recovery and all operations are paid for by the State.* In this scenario, the system is effectively subsidized by all taxpayers and has few incentives for those concerned in the operation that go beyond the needs of satisfying the demands of the bureaucracy. This system is comfortable for those involved, while their funding ministry provides the resources needed. It can be difficult for agencies operating in this way to respond to changes in the market because of the need to seek governmental approval for any variation to their budgets. It also does little to ensure that the services provided are used in a rational way, as users are unaware of costs.

*Users pay for the cost of making the data available, but not for the cost of their collection and updating.* This scenario reflects the situation in many countries where systems are currently being developed and government covers the costs as a step towards the creation of land markets. Apparent user costs may be low, but as all taxpayers are contributing, the overall costs of transaction may be high. Unless well controlled, this can lead to unfair competition where government agencies with access to cheap or even free information compete with commercial companies offering similar services.

*Partial/full cost recovery.* This scenario applies to most of the countries that responded to the "fees and charges" questionnaire. Benefits accrue to the general taxpayer or non-taxpayer in the sense that each individual user pays all or most of the costs. There is some danger that the cost of transaction reflected in the fees and charges may deter people from registering property and thereby lead to the creation of an informal land market. Many organizations in various countries have undergone the transition from being a government-funded organization to a government agency run as a business. This can be an extremely difficult cultural shift, and staff can feel challenged unless the changes are well managed. Costs can easily increase when staff obstruct changes because they see no benefit attached to the reform. This is an area where financial incentives or improved conditions for staff could be beneficial for the organization.

*Profit achievement, which is reinvested in the agency.* This is the situation that exists with agencies that in general are effectively working as independent businesses even though they may "belong" to government. Where efficiencies improve, the benefits may be reinvested or returned to users in the form of lower fees. In general, any "profit" will have to be held within a limit decreed by government. The European Union in particular has approved directives that limit the amount of profit that can be made.



*INSPIRE* is the 2007 Directive establishing an infrastructure for spatial information in the European Community (Directive 2007/2/EC). It requires European Union (EU) Member States to facilitate the harmonization and interoperability of spatial data sets across administrative or national boundaries. While the Directive applies to all data held by public authorities in performance of their public tasks, there are caveats for uses of some information. Within the specific themes identified are cadastral parcels, coordinated reference systems and addresses, all of which are component parts of registration and cadastral systems. *INSPIRE* requires that the public should be able to access metadata for spatial data sets created in accordance with the Directive and should be able to view these data (display, navigate, zoom, pan, overlay, etc.) free of charge. The data may, however, be in a form that prevents its re-use for commercial purposes. Where data is required for commercial use, EU Member States may levy charges or licence its use. Directives such as this offer a vision of the future, with facilitated and more efficient access to data, the development of wider markets and the potential to drive down costs with a consequential reduction in fees and charges. *INSPIRE* does not apply outside the European Community, but it does provide useful guidance on the administration of spatial data.

*One-stop shops and e-government.* The development of “one-stop shops” (i.e. locations where users can access a broad range of cadastre and registration functions) is highly recommended. Those “shops” can be services in both the public and the private sector, and may include the co-location of players such as registration authorities managed by the State, private cadastral surveyors, notaries/lawyers and mortgage/*hypothèque* providers. Tasks should be reviewed whenever users have to meet officials to ensure that as many tasks as possible can be dealt with in a single visit. This could mean, for example, revising the administrative steps for registration (the process model). Clearly there is a trade-off between saving time for users and administrative efficiency, but these issues should be considered in setting up those processes. The linking of cadastres and registers is a fundamental step towards the creation of e-government and, if well managed, can lead to improved services for citizens and reduced demand on public resources and budgets.

Among the numerous practices involved in setting fees and charges, the overriding view for more mature land administration services is that the user should pay. However, in poorer or less developed countries, this may not be a credible approach. The subsidization of the initial creation of the administration system and the recovery of operating costs are crucial aspects with respect to defining fees and charges policies. Many countries developing their real property and financial markets have spent taxpayer money to support the creation of their property registration and cadastral systems. When the proportion of benefits to costs becomes higher and the benefits accrue to the general public, this subsidy is easily justified. As systems mature, however, clear benefits accrue to the individual or legal person registering their property. It seems reasonable in these situations that these individuals, the “users”, pay for their recurrent use of the system.

Directive 2003/98/EC of the European Parliament and of the Council on the re-use of public sector information is a useful guide to practice within the EU:



*Where charges are made, the total income from supplying and allowing re-use of documents shall not exceed the cost of collection, production, reproduction and dissemination, together with a reasonable return on investment. Charges should be cost-oriented over the appropriate accounting period and calculated in line with the accounting principles applicable to the public sector bodies involved. (Directive 2003/98/EC, Article 6)*

The Directive does not prevent “the exchange of information between public sector bodies for the exercise of public tasks, whilst other parties are charged for the re-use of the same documents” (Directive 2003/98/EC, preamble, para. 19). This can be interpreted to mean that, except where there is a statutory requirement for the interchange of information, no institution, agency or organization may obtain data, information or services free of charge.

*Pricing strategies.* Like fees, the charges (or royalties) set must be the responsibility of the country or jurisdiction concerned, and in any instance should reflect what is acceptable to the population and be compliant with the appropriate financial requirements and accounting procedures.

Whether any cost should be fixed, calculated on the basis of property value or other factors – or be on a sliding or stepped scale – is a matter of choice and local conditions. A wide range of factors may be involved in setting the levels of fees and charges. In their most simplistic form, however, the following are often taken into consideration either individually, or as part of sometimes complex formulae or algorithms. These factors include the required level of cost recovery (if any), the benefits received, the disseminated costs based upon an amount of data provided and technical solutions used, potential risks and effects on market size and timing.

The importance of any factor or the balance between different factors is a matter of local choice, and given the range of possibilities it is not credible to attempt to identify a best strategy. What can be said is that it is paramount to know what the real costs of an operation are when defining a pricing strategy and setting fees and charges. Awareness of market conditions and flexibility in pricing can potentially have major benefits, and all organizations or agencies – especially those using cost recovery as a source of funding – need to be aware of changing market conditions and have financial mechanisms in place to ensure efficient funding during periods of both low and high market activity.

#### **D.**

#### ***Factors affecting cost allocation and cost recovery***

It is easy to state that charges should be set to recover costs plus a reasonable return on investment, yet to ignore where the costs come from and how they are generated. A fundamental need is to know what the real costs are before realistic levels of fees and charges can be set. This is not always as straightforward as it may seem, especially when responsibility for registration and cadastre is split between various ministries or organizations. In addition to this, the effective control of costs depends upon having clear objectives with respect to the tasks expected, an environment suitable to do the work, a robust management information system that identifies the cost of resources (and how these are expended), and appropriate accounting procedures.



*Control of registration and cadastres.* In some jurisdictions, the responsibilities for registration and cadastre are split between different ministries or organizations. In many jurisdictions this works very well, but experience shows that such a division of responsibility can easily lead to delays, misunderstandings and poor administration, which together equal more cost. Divisions fulfilling different tasks in this system are a result of historical experience, and consequently do not correspond to the requirements per se. For example, it has been common for Ministries of Justice to be responsible for legal registration, but other organizations (sometimes subsidiary parts of other ministries) are responsible for survey or cadastral issues, or to have land and buildings as separate responsibilities. Within the last few years, some countries have consolidated responsibilities within a single body, and this seems to be the most cost-effective way forward. There are potential administrative and cost benefits if responsibility lies within one entity, independently of whether the body is public or private. To achieve this goal, all data that help create and potentially complete the land register and cadastre should be used. A related issue to cadastre reform is to ensure that data is collected only once and is made available to other institutions and users. Availability may be achieved through the sharing, exchange or the sale or purchase of data.

*Laws and regulations.* All countries have some legislation in place, and amending legislation is almost always a protracted and time-consuming exercise. The speed of modern development means that opportunities to improve efficiencies, to modernize systems and operations and to reduce costs can arise quickly. In contrast, implementing changes can be hampered by the way in which the legislation is developed. Where necessary, countries should be encouraged to quickly create new legislation or modify old ones to support new technologies. Experience suggests that there are advantages if laws are the general framework within which operations happen, but disadvantages occur if laws are too prescriptive and too technical. Laws affecting privacy may vary in different countries, but the “right to privacy” needs to be maintained during the development of any cadastre and registration system, and to take into account societies’ interests. The data held in cadastres and registers must be secure but accessible for customers. Further to this, all cadastres, registers and data sources should publish “privacy policy statements” that clearly outline the rights of users and the data suppliers. The statements should take into consideration the balance between “rights to information” and “rights to privacy”.

*User needs.* In the context of this report, “users” are the persons or organizations using the information or services provided by the registers or cadastres. System operators are not users of their own system, though they may be users of information from other systems. Users are also the natural and legal entities, private and public bodies, Governments or governmental departments that play the role of decision makers who determine what developments of the cadastral services are needed. The development of cadastral services has to correspond to the political frameworks for the corresponding jurisdiction, country or region. In designing and creating systems to hold data and manage registers, it has been common in the past for the technical requirements of a system to take precedence over the needs of the actual users. This has meant – and in some instances still means – that someone wanting to register a property has to visit – and sometimes re-visit – several different offices and different people in different locations. This may be efficient in the terms of the officials doing the work, but is hugely inefficient for the consumers, who have to find the time and resources to visit the various locations. These costs cannot be ignored, and every effort should be made to minimize them. A way to cope with this issue might be the introduction of one-stop shops.



*Specifications.* The over-specification of cadastral data should be avoided, as this can be very costly. High specifications result in extra work and lead to higher costs, serious work delays or even no action at all. In any context, higher than required specifications and greater complexity equal higher fees and charges. Cadastral surveying is a discipline that can easily suffer from unrealistic specifications. Surveyors' task is to satisfy the specifications of their customers, thus they will satisfy demanding specifications if the laws or regulations require it. In cadastral surveys, most perimeter points of cadastral parcels cannot be identified with an accuracy of more than 1 cm. Modern equipment may be able to measure to 0.1 mm, but this does not make the measure credible if the point being measured cannot be identified to the same level of precision. Care needs also to be taken in defining exactly what is required as far as area/volume measurements are concerned. Requiring areas to be identified to decimal points of a square metre is unlikely to give a true answer, unless the areas are very small and extremely well defined. Moreover, it has to be secured that data are collected only once. These issues can easily make the costs of measurement outweigh the benefits. One area where this can be a problem is with fiscal cadastres, where very high precisions can be mandated for tax purposes. In this case, the taxation authority should be made aware of the consequences of high technical specifications and the real costs that this precision will require. Finally, cadastral, land register and related data should be geo-referenced using a recognized international coordinate system, or a national system with published transformation parameters. This will facilitate the linking of both national and international data sets.

### **III. RECOMMENDATIONS FOR THE APPLICATION OF FEES AND CHARGES ON CADASTRES AND REGISTERS**

#### **A. *Institutional aspects***

Governments, responsible ministries and institutions should work together to define the policies, strategies and standards under which real property cadastres and registers are to be created. These should take into account State, regional and geopolitical requirements (e.g. those of the EU).

Whenever suitable for a country or jurisdiction, one organization should have overall responsibility for registration and cadastre. The linking, integration and harmonization of cadastres and registers will improve the information infrastructure of any country, and should lead to improved financial returns and better government. Linking generally improves quality, creates information that was previously expensive, uneconomical or very time consuming to produce, and allows the identification and correction of previously unrecognized errors or omissions.

Services that can be used across borders (e.g. according to the INSPIRE Directive) will in the longer term offer the greatest benefits to Governments, to market actors and to the average citizen. National or regional institutions often hold significant data that is relevant to the land register or cadastre. Linkages across national boundaries may facilitate better understanding and cooperation between countries. Within the EU, this is one of the drivers towards the development of a cross-border property market. Countries, especially in the UNECE region, should be encouraged to exchange information and facilitate dialogue between potential partners, public or private, to agree standards and share costs.

As far as costs are concerned, negotiations with data holders and the use of their data for a register and/or cadastre for sharing, exchange or purchase is invariably cheaper than new data capture. In such situations, the ownership and legal status of the data – as well as the issue of who is responsible for the maintenance and validity of the data – must be clearly defined.

It is vital that users understand and have trust in the system, and it may be necessary for organizations to undertake public awareness campaigns to this end.

Laws and regulations should be written in a way that allows changes and improvements to be made in processes, but minimizes the need for changes in legislation. Therefore, policies, changes in pricing strategies, and standards should be kept under review to ensure that they respond to the needs of society, the economy and the market situation, and do not become outdated or difficult to enforce. This requires a constant awareness of the changing market on the part of the institutions involved.

The protection of the consumers' "right to privacy" is a crucial point. The balance between "right to information" and "right to privacy" should be taken into consideration in the development of the privacy policies of cadastres and registers.

## **B.**

### ***Administrative and technical aspects***

The organization and management of real property registers and cadastral systems in UNECE member States differ in each country. However, the fundamental intentions of protecting and managing land, rights to land and developing land markets remain the same or very similar.

Many countries are aiming to maximize the benefits of new technologies and have moved towards the development of e-government systems. This change will potentially lead to improved services for users and is able to use economies of scale to reduce costs. The use of electronic documents and e-signatures offers substantial savings, whereas the development of one-stop shops saves time for consumers.

Web-based systems offer an easily accessible method of making information widely available at relatively low cost, of creating discussion forums, and of helping to develop markets. The development of sound metadata systems for cadastres and registers across UNECE countries should also be encouraged.

The structure and content of real property cadastres and registers are of crucial importance, as they have profound effects upon their usefulness within any society. They should be specified to satisfy the required task. But they should not necessarily be specified to support some possible future need unless that need is a fundamental component of the system. The over-specification of cadastral data should be avoided, as this can be very costly. Requirements for data should be adapted to levels where a trade-off between accuracy and cost-effectiveness can be found.



Information should be available in a form that fulfils customers' needs and wishes, i.e. what they want and what prices they are prepared to pay taking into consideration cost-recovery principles. Strategies on real property cadastres and registers should be realistic, achievable and based on the needs of the economy and market situation of the individual State.

The customer or user should decide what development is needed within the political frameworks that are socially acceptable within the country or area.

Some countries have freedom of information acts, but data are not "free". Payment must come from either the user or from taxation. Except where there are statutory requirements for the free exchange or supply of information, all users should pay for data, information or services.

Some specialized register information required by Governments or some minority users may be very expensive to collect and to keep updated. This information may fall outside the general requirements for basic registers. The specialist user should fully fund the collection and maintenance of such data.

Before a pricing strategy and the setting of fees and charges is defined, the real costs of the operations concerned have to be identified. The charges should be set to recover costs plus a reasonable return on investment, wherever this is allowed. However, some jurisdictions either restrict or do not support this approach. The availability of financial mechanisms to ensure efficient funding during periods of both low and high market activity makes the administration system more resilient.

Subsidies are reasonable when the society at large can be reimbursed through the benefits resulting from the improved registration and cadastral systems. However, when systems are more mature, costs should be fully born by the individual user.

It is also recommended that steps should be undertaken to redistribute a similar questionnaire as the one used for the present study, in order to collect the same type of information in five years' time. This would provide time-adjusted statistics for comparative purposes that could be used to more clearly identify trends.



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