Land and commerce registry as an instrument for sustainability

Expert's corner report

Prepared by the Professional Association of
Land and Mercantile Registries of Spain

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In order to provide possible inputs to the developing work programme of the EEA, and to stimulate debate on issues that may contribute to the identification, framing and evaluation of environmental policy measures, the EEA, from time to time, asks independent experts to summarise their views on topical or upcoming issues, so that the EEA can consider publishing them as Experts' corner reports.

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Preface

No matter what the organisational model it adheres to, the institution of the land registry was created to endow real estate trade with legal certainty in immovable property transactions. It does this by providing a kind of disclosure that has legal effects and by reporting tabulated records of information that have duly passed a screening process to gain access to the registry.

But, in addition to performing their essential function, with the passage of history, land and mercantile registries have assumed a position in centre stage as a coadjutant instrument for achieving other goals that are just as essential to the community. Registries cooperate in enforcing certain structural and/or sector-specific policies, for example, in the fields of agriculture, urban development and the environment. This report explores areas where the EEA and the Land and Mercantile Registries can engage in reciprocal cooperation, as their fields of action partially coincide, and since land is one of the basic aspects of environmental measures.

The Association of Land and Mercantile Registrers of Spain, acting as the developer and coordinator of the European Network of Land Registrers coordinated this report. It assigned the task of directing the study to two members of its governing board, Pilar García Goyeneche and José María Alfín, and named Mataró registrar, Mariano Va Aguaviva, coordinator of the papers.

Other registrars have also participated actively in the study's preparation with their personal contributions: Fernando Méndez, Santiago Lafarga, Vicente José García Hinojal, Marta Valls, Mercedes Tormo, Luis Alfredo Suárez, Antonio Giner, Jorge Requejo, Manuel Ballesteros, José Antonio Rodríguez del Valle and José Simeón Rodríguez, Juan María Díaz Fraile, Javier Lardies, Joaquín Larrondo, Enrique Mariscal, José Ignacio Martín, Nicolás Nogueroles, Plácido Prada and Jesús Santos have also cooperated. I would like to thank them all on behalf of the corporation for the pains they have taken to throw light on this important subject, an area where the Professional Association of Land and Mercantile Registrars of Spain and the European Environment Agency have undertaken a cooperative arrangement that will surely prove fruitful in the future.

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Coordinator, Registrar, Mataró Land Registry Number 1, Mataró, Barcelona

Contents

Summary

This 'expert's corner' comprises a set of coordinated individual papers that propose to analyse different aspects of the land and mercantile registry as a legal instrument for environmental preservation, arranged according to the following plan.

1. Introduction

This is a general statement of the issue, exploring the land and mercantile registry's function in relationship with the environment. What things must be subjected to registry disclosure in order to guarantee legal certainty and environmental principles. The usefulness of the registration office as an information office pursuant to Council Directive 90/313/EEC of 7 June 1990 on the freedom of access to information on the environment. Lastly, the introduction points out how the real right of easement is an excellent way of establishing and guaranteeing public environmental limitations and environmental limitations accorded by private persons under the principle of free will. Some of these transactions are called 'emission right trades', to use environmental terminology.

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Mataró, Barcelona

2. The land registry as a means of environmental prevention

This section comprises several articles:

2.1. The introductory article entitled 'Environmental legislation and registry gatekeeping', which discusses the function land and mercantile registries perform.

Author: Fernando P. Méndez González
Dean and President of the Association of Land and Mercantile Registrars of Spain

Two general essays:

2.2. 'Land registry and environment', which focuses on how rational land use and respect for the environment have had an impact on the concept of proprietary rights and the administration, the main representative of collective interests. The author stresses the vital importance of information for environmental protection.

Author: Santiago Lafarga Morell
Registrar, Rosas Property Registry Number 2, Girona

2.3. 'Registry reporting of environmental limitations involving concrete, specific pieces of property'. This essay studies the relationship between environmental information as per Directive 90/313/EEC and the Aarhus Convention and the kind of reporting the land registry can provide, plus the method for recording environmental information in the registry's books and the contents of that information.

Author: Vicente-José García-Hinojal López
Registrar, Bisbal Land Registry, Girona; and President of the Association of Land Registrars of Spain

A paper on a specific, concrete subject.

2.4. 'The registrable title'. The entire range of environmental situations, be they limitations, prohibitions, concessions, licences, etc., require certain documents to be turned in at the registry as proof. This paper particularly addresses the issues of administrative entitlement, judicial entitlement and documents signed by private persons pursuant to the formalities of State legislation.

Authors: Marta Valls Teixidó
Registrar, Olot Land Registry, Girona;
Mercedes Tormo Santonja
Registrar, Barcelona Land Registry Number 23

3. The land registry as a medium for guaranteeing punitive measures in the environmental realm

While the essential principle of environmental protection is prevention, punishment must also be employed as a subsidiary principle. This paper emphasises how land registries help in the task of territorial policing, albeit strictly by informing people about the penalties the law sets for breach of environmental

conservation duties or guaranteeing that economic penalties are meted out or indemnities are established. Registries' contribution must and can cover the entire gamut of activities involved in restoring the upset ecological equilibrium, and that concept is much broader than the concept of just punishing transgressors.

Author: Luis Alfredo Suárez Arias
Registrar, Arenys de Mar Land Registry, Barcelona

4. The registry office and environmental information

This section features two papers:

4.1. 'The land registry as an environmental information office'. A theoretical and practical study that describes the offices that are home to the institution of the registry. Because of the registry office's characteristics, infrastructure, resources, organisation on a territorial basis, human resources, etc., it can and ought to be optimised to provide environmental information in the broad sense and to make the citizen/consumer's right to access to environmental information a reality.

Author: Antonio Giner Gargallo
Registrar, Sant Feliu de Llobregat Land Registry Number 2, and Provincial Delegate for Barcelona

4.2. The second paper is more technical in nature. It describes how property identification by images can be incorporated in registries when it is properly georeferenced with direct location coordinates and complemented by the appropriate computer application.

Author: Jorge Requejo Liberal
Registrar, Valladolid Land Registry Number 6

5. Suggestions for possible applications

To be implemented in various areas:

(a) experimental test to offer information online from land registry offices;

(b) cooperation agreement between the Generalitat de Catalunya (autonomous regional government of Catalonia) and Catalonia land registries enabling registries to report environmental situations;

(c) cooperation proposal concerning the registration institutions of the EU and neighbouring countries.

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6. Environmental law and the mercantile registry

This paper posits that the mercantile registry is an apt instrument for reporting the administrative, judicial and other rules, limitations and actions affecting companies, because it sets down, for the legal record, all the environmental situations or actions it is believed ought to be disclosed. The paper takes an especially close look at eco-audits. It also points out the advantages registry reporting would bring to the business of emission right trades.

Authors: Manuel Ballesteros Alonso and José Antonio Rodríguez Del Valle
Registrars, Barcelona Mercantile Registry

7. International aspects of environmental information

After an introduction to environmental information and its Community perspective, this paper discusses the relations with other registration institutions of the EU and some neighbouring countries, established on the occasion of the experts' corner to report on the start of work and to gather information and commentary.

8. Expert's corner findings and action

9. Glossary of terms

Explanations have been proposed to help give a better understanding of the most frequently used legal terms.

In addition to the authors cited above, the following registrars have contributed in meetings, discussions, proposals and solutions: Juan María Díaz Fraile, Javier Lardiés, Joaquín Larrondo, Enrique Mariscal, José Ignacio Martín, Nicolás Nogueroles, Plácido Prada and Jesús Santos. The governing board of the Professional Association of Land and Mercantile Registrars of Spain appointed its members Pilar García-Goyeneche and José María Alfin Massot to manage the experts' corner and Mariano Va Aguaviva as its coordinator.

1. Introduction

Mariano Va Aguaviva, Land registrar

The environment, the land registry and the mercantile registry are directly related:

- The basic components of the biosphere and constituents of the environment, strictly speaking, are air, water and earth. Earth or land is a mosaic of pieces of property or real estate that form the basis on which the land registry is organised and whose proprietary title is what the land registry deals with. In fact, that portion of delimited land or territory that belongs to a titled proprietor is what we mean by 'property'.

- The land registry is an institution whose purpose is to imbue the trade in immovable property with certainty by reporting who owns immovable property and what burdens are on it. For a wide variety of reasons of environmental origin, there are limitations on rights that must be disclosed at the land registry, not only to guarantee the certainty of trade, but also to ensure environmental protection, whose basic principle is prevention, and prevention requires proper information.

- Land registries are public offices, and they exist all over the European Union. Because of their handy location near citizens and their sphere of competence (immovable property, information, legal certainty), they are especially promising targets for optimisation as general environmental information offices, if equipped with the proper georeferenced image bases to define the different layers of environmental information to be made available to citizens under Council Directive 90/313/EEC of 7 June 1990.

- Mercantile registries or registries of commerce are institutions that also hold a brief for legal certainty and disclosure. They are regulated under uniform criteria throughout the EU, because they have been adapted to directives.

Let us trace out the relationship between the mercantile registry's reporting of corporate information and the reporting of certain environmental matters wherein companies are directly involved, among which we propose the following:

- **Eco-auditing and environmental certification** (ISO No 14001, 17025 and EMAS). Today, these are normally voluntary procedures, but they are increasingly becoming a commercial need. Good environmental management is beginning to be a synonym for good economic management, greater access to credit, lower insurance rates, better brand image, etc.

- **Emission right trading and sales.** Although emission right transactions are already properly reflected in business accounting procedures, they are still so important as to merit special treatment in the method of their reporting and, in short, special treatment from a special registry (the chattel goods registry) that can record the ownership, encumbrance and transfer of rights that have no readily apparent proprietor.

A brief explanatory exposition of the above points leads us to the following considerations:

The European Union is based on the principle of the rule of law (Treaty on European Union, Article 6) and has as its objective to maintain and to develop the Union as an area of freedom, security and justice (Treaty on European Union, Article 2.4). Legal security is not only an objective but also a requirement in order to be able to meet the rest of the Union's objectives, particularly economic and social progress (Article 2.11).

This requirement — legal certainty — is so thoroughly tested in practice and analysed in theory that it needs no detailed demonstration here. Let us just mention that in 1993 the Swedish Academy gave the Nobel Prize in Economic Sciences to two economic history professors, North and Fogel. According to the Academy, 'Innovations, technical changes and other factors that are generally regarded as explanations, are not considered to be sufficient by North. They are themselves a part of the growth process

and cannot explain it. Effective economic organisations are the key to economic change'.

In his 1990 book, *Institutions, institutional change and economic performance*, North analyses the fundamental issue of why some countries are rich and others are poor, even when they have abundant natural resources. 'Societies that display greater relative efficiency in reducing transaction costs, defending property rights and enforcing contract performance are able to achieve greater economic growth than societies that are less efficient in this area. The contribution of order, stable institutional rules and the predictability they contribute leads to greater, more stable investment and the assumption of risks that, in any other environment, would be unacceptable, and therefore it makes the economy more dynamic'.

Legal certainty requires certainty in the rule of law, and it requires disclosure. The law creates institutions that are assigned the function of providing legal certainty. The land registry is one such institution. Its job is to give legal certainty to the trade in immovable property by means of reporting the terms of the immovable property traded. This institution is not just an information office; it fundamentally produces a whole series of legal effects. Its wide-ranging effects have an impact not only on certainty and security but go even beyond, influencing the transaction costs that are going to nudge the flow of resources towards their best use, and they also reduce market asymmetry. Market asymmetry is such a vital concern that this year (2001) the Royal Swedish Academy of Sciences has given the Nobel Prize in Economics to economists Akerlof, Spense and Stiglitz for their work on markets with asymmetric information, that is, markets where the different agents acting on a single market have different levels of information to guide their decisions. Without a doubt, the reporting of environmental data will enhance the transparency of the property and business markets.

In short, the citizen, the consumer, is entitled to demand land registries to disclose environmental situations such as those listed herein below as well, in application of the principle of legal certainty:

- Limitations, ties and easements that singularly affect ownership or faculties thereof due to environmental causes (contaminated land, natural parks, etc.).
- Precautionary and preventive measures taken by the administration in environmental matters in relationship with given pieces of property.
- Administrative licences that grant emission rights linked to given pieces of property and administrative concessions for regulating resource use.
- Technical and economic aid for encouraging the performance of actions called for in environmental programmes, to cause the subrogation of future holders in contracted obligations.

In application of the 'polluter pays principle'.

Once done, pollution is hard to fix. The point is not to tolerate pollution for a price to be paid in compensation for damages caused, but to keep damage from happening in the first place. The fundamental objective in making punishment methods more effective is to prevent transgression. To help reach that objective, the land registry could record the following particulars:

- Corrective measures for given pieces of property, as declared by the administration.
- Punitive measures such as suspending business and closing down facilities.
- Fines and pecuniary sanctions to guarantee enforcement.

The ultimate goal of all these actions above is to provide truthful, full information about the legal situation of property for improved compliance with environmental rights and duties, and to see to it that future holders are affected as well, in application of the principle of real subrogation. They would also double as a means of increasing certainty in real estate trade and bolstering economic efficiency due to reduced transaction costs; these are two natural results when full, easy-to-access information is available.

It is to the general interest for such situations to be made public, and society must demand that they be made public, not only because of the principle of general legal certainty, but also because of the specific subject at issue, the environment, which requires special

attention and protection. 'A high level of protection and improvement of the quality of the environment', says Article 2 of the Treaty establishing the European Community, based on the precautionary principle and the principle that preventive action should be taken (Treaty establishing the European Community, Article 174.2), which inevitably requires precise information and disclosure with legal effects. Those requirements can be obtained from the land registry.

The most advanced information technologies and georeferenced image bases should be used to execute this ambitious but needed proposal for registries to report the various environmental situations involving concrete, specific properties.

1.1. Land registry as an environmental information office

The land registry must remain faithful to its guiding principles if it is to continue fulfilling the function entrusted to it by law. The entries made in the land registry are safeguarded by the courts. Rights are published with efficacy *erga omnes*. In other words, the land registry must not be made into a mere bulletin board. That would taint and injure the essence of the registry.

Whether an environmental information department can be set up inside the registry office is a different question. Because of land registry offices' direct relationship with a given physical space, their handy location for citizens, their information-processing equipment and telematic resources, georeferenced image bases, and so on, our offices could report information facilitated by other institutions whose purview includes environmental information, particularly information available from the European Environment Agency itself, which is a networked administration.

Environmental factors by nature are able to affect wide swathes of territory, and it is very important for them to be known. For that very reason, the EU did not restrict itself to the general principle of consumers' right to information under Article 153 of the Treaty establishing the European Community, but also enacted a specific directive, Directive 90/313/EEC.

Council Directive No 90/313/EEC of 7 June 1990 on the freedom of access to information on the environment gives Member States the obligation to provide as necessary and to acknowledge the right of any natural or legal person to access to information about the environment held by public authorities without having to prove a specific interest.

By applying telematics technology, land registries could also act as simple information offices to facilitate environmental information, which could include applicable legislation.

The complex, many-faceted nature of environmental issues means that environmental issues affect a wide scattering of legal sectors and makes the environment the centre of all general public policies on land and sector-specific policies directly affecting land. The environment has a varied, changing impact on them all.

That is why understanding the real situation is so complicated, especially in a global market system. Traditional means of making legislation and territorial planning public by means of mere bare-bones reporting do not do enough to guarantee legal certainty of knowledge and therefore compliance. News of legislation's existence must be announced, yes, but people must be helped to an understanding of what it involves and how to interpret it as well. By this we mean that information must not be limited to a mere statement of data or factual situations; it must extend also to the applicable rules and regulations and the competent institutions. That will require meticulous work, but the meticulousness of the work must not dissuade us from doing it, because it is far too important to safeguard the principles of the rule of law and environmental protection.

1.2. Emission right trading

It is the function of science to find each pollutant's maximum tolerable limits of emission into the atmosphere, by itself and in association with other pollutants.

Legally, the air has always been considered *res nullius*, a communal thing for everyone to enjoy. Industrial civilisation has made it technologically possible not only for us to have unequal enjoyment of the air, but also for serious injury to be inflicted on our communal air, an example of what in economics has come to be called 'the tragedy of the commons'. 'Open access to a congested natural resource follows a pitiless logic to a terrible end, like in a Greek

tragedy' (Garret Hardin). Nevertheless, open access and public property do not necessarily have to be the same. In order for air quality to be controlled, concessions or licences must be given for certain parameters. To make economic development compatible with maximum emission levels while avoiding the undesired situation of zero development requires technological innovation and alternative technologies plus recognition of the air's economic value through the possibility of trading emission rights.

The mercantile registry would be a good institution for reporting emission rights and transfers of emission rights as a part of normal business procedure. With the proper adaptations, the same is likewise applicable to our other vital natural resource, water. Local information could be listed in a central registry.

1.3. Land registry as a provider of land rights

Land, the third component of the biosphere, lies under the cognisance of the land registry.

It is a basic, traditional, standing idea of legislation, a reflection of different cultures' social attitude, to acknowledge the right of individual ownership of land (and what we are about to say is equally applicable to family property, communal property, group property and even public property). Thus, a portion of land is transformed legally into a piece of property, and over that piece of property its owner, the titled proprietor of record, holds broad faculties. What we call the social function of proprietary rights has a modifying influence on this assortment of faculties. Society may demand that the property be rendered productive (agrarian laws) or that capital gains be distributed (urban development laws). In some cases, both situations may clash with environmental protection. But, what we want to emphasise is that for the law, land is an object, a property subject to the application of proprietary rights.

Nevertheless, modern times have obliged us to look on land as a natural resource and to abide by the consequences of that tenet in every realm, including the legal realm, which is the realm that has to regulate the applicable order. Citizens, society and public authorities all have to assimilate this reality: land is made up of pieces of property, and both the whole (the land) and the parts (the pieces of property) are natural resources whose use must be in accordance with sustainable development. The *nomen juris* 'proprietary right' must be preserved because the idea is so steeped in tradition, but nowadays the holder of proprietary rights (always a transitory position) is a usufructuary who ought to husband the property under an intergenerational obligation. This new concept, that of the natural resource, is going to lead to a series of limitations that, when singular and affecting specific pieces of property, must be disclosed in the land registry, as we pointed out above.

The law has traditionally settled problems of land scarcity by creating legal formulae such as joint land ownership compatible with the individual ownership of apartments subject to independent use. The scheme was applied on the tiny island of Phoenician Tyre, the first known case, and it is applied today in Manhattan.

Now, the law must tackle a problem that is not only one of quantity (scarce land) but also one of quality (land as a natural resource that can only countenance enjoyment that is compatible with sustainable development).

Our entire economy must be adapted to respect environmental demands, most especially when the object of those demands is a natural resource, as land is in the case at issue — an irreproducible, limited and therefore scarce item. In the subject at hand (which we call emission right trading, to use a term that can cover a varied field of content), it is the law's job to formulate solutions enabling the enjoyment of a piece of property to coexist with compatible uses to which several owners are entitled. The idea is to optimise the resource without harming the environment and without declaring any more resources 'out of bounds' than necessary.

Let us look at an example that occurs in practice:

An agriculturally sound livestock farm must have x m^2 of land per head of livestock in order to be an economically profitable concern. However, in order to be an environmentally sustainable concern, the farm requires five or 10 times more area than agricultural science calls for. So, there is an area of land that is occupied directly, and there is a surrounding environment that makes that area sustainable. Apart from the

economic problem of making the livestock farm viable if so much more land has to be bought, it also so happens that the purchase of all that surrounding land is harmful to the environment, because it writes off or cuts off a natural resource that could bear other uses. In addition, there are all the difficulties involved in trying to retrofit an already existing farm. Therefore, we consider that legally it ought to be admissible for the farm's owner to purchase the faculty of releasing emissions into his surroundings. That way, a neighbour who transfers his emission rights to the livestock farmer can continue putting his land to any allowed use except livestock-raising. The environmental sustainability of the farm is safeguarded and rendered compatible with economic development because the resources have been optimised.

Under the scheme of condominium property ownership, people can be assigned exclusive rights to and joint ownership of common elements. What we call 'emission rights' are going to enable the enjoyment of property to be divided into simultaneous compatible uses enjoyed by various proprietors (which I consider is best done primarily in the form of easements, where property is concerned).

I consider that, in any case, emission rights should be placed in the sphere of real rights, not the sphere of obligations, because the important thing is the property, not its owners. If framed as a real right, emission rights will afford permanence, certainty, effects in dealings with third parties and real subrogation in the established order.

Also, to return to our example of the legal handling of farm wastes, if the wastes cannot be environmentally assimilated by the farm itself, the properties the wastes go to ought to have the support of an appurtenant easement. Since these are real rights we are talking about, the land registry will provide those rights with the legal efficacy and disclosure that are characteristic of the institution, especially in cases of transfers of rights that do not entail possessory displacement.

The appurtenant easement is the best legal tool for establishing and organising both public environmental limitations and environmental limitations set for the benefit of private persons.

In short, it is important to establish a connection between environmental law and civil law and the inspiring principles thereof.

2. The land registry as a means of environmental prevention

2.1. Environmental legislation and registry gatekeeping

Fernando P. Méndez González, Dean and President of the Association of Land and Mercantile Registrars of Spain

This paper contains a brief reflection on the possibility of considering the land registry (and the mercantile registry as well) as a gatekeeper, guardian of legality or law-enforcement institution in the realm of environmental legislation as well. The idea requires a few brief preliminary reflections about the function of registries and the figure of the gatekeeper.

This paper refers only to what are known as title registries, because, for the reasons given briefly at the end, deed registries can hardly perform this kind of function.

2.1.1. Registry systems as transaction cost reducers

In legal systems organised on a very elementary basis, the difficulties caused by information asymmetry between buyer and seller (as the seller normally has a better grasp of the physical and legal attributes of the item for sale and is interested in concealing any attributes that might frustrate the sale or reduce the price by much) are mitigated only by private formulae designed to safeguard the buyer. These formulae are based on the seller's liability under contractual guarantees. Some contractual guarantees are honoured because the seller wishes to remain a visible market presence; others, because judicial action for enforcement is taken *ex post facto*. In the latter case, the 'concealed rights and defects' (the origin of the information asymmetry) survive until a court sentence is eventually handed down, and their survival is a hindrance to any transactions involving the goods and rights at issue.

In order to avoid asymmetries due to hidden rights — and also to some measure to facilitate *ex post* judicial action — practically all modern legislations have provided for some type of public intervention *ex ante facto* to reduce real estate transaction's information or uncertainty costs as far as possible.

So then, registration systems (real estate and company registration systems) pursue the essential goal of reducing legal uncertainty in the matters within their competence, and therefore containing legal information costs in their sector ([1]).

Reducing uncertainty is equivalent to increasing certainty, and increased certainty not only serves to facilitate exchanges but also — and we would do well to stress this point — to foster the use of properties as security for the performance of other contracts, primarily credit agreements ([2]).

The registry's achievement of these goals has made it, with the passage of history, a fundamental law-enforcement institution for containing the positive transaction costs inherent in all market economies ([3]).

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(1) From this perspective, it would appear that we might postulate the tendentious evolution of registration systems toward the ideal accomplishment of what we might call **registration completeness**, by whose virtue the registration system ought to provide economic players with all the necessary legal information on the immovable property in question, including environmental legal information, so the players can take contractual decisions.
The registry ought to supply all the necessary information, on its own or in cooperation with other land information systems. It would thus go far to reduce information costs (with all the consequences inherent in that achievement).

(2) In fact, if we look at the historic origin of most, if not to say all, registration systems, we see that the initial reason they were introduced was originally to enable the immovable wealth of an individual to serve as security for credit, the great lever of all modern economy. Modern economy is after all merely an economy of credit. Consider the following passage from the preamble to the Spanish Mortgage Act of 1861: 'Our mortgage laws are condemned by science and by reason, because they neither sufficiently guarantee property, nor do they exercise a healthful influence on public property, nor do they seat territorial credit on solid bases, nor do they impel the circulation of wealth, nor do they moderate the interest on money, nor do they facilitate its acquisition to the owners of immovable property, nor do they duly ensure the persons who lend their capital on this guarantee. In this situation [...] reform is urgent and indispensable for the creation of territorial credit banks, to give certainty to ownership and to other rights in the thing, to place limits on bad faith, and to free the landowner of the yoke of pitiless usurers'.

2.1.2. The gatekeeper: Notion and requirements for its effectiveness as a law enforcer

To gain at least a partial understanding of this function, we must refer to the role of the registry as a 'guardian of legality' or gatekeeper ([4]), an expression that has prospered in the economic analysis of the law to refer to a special strategy or mode of law enforcement, which consists in applying sanctions to or demanding responsibilities from private parties that, because of their transactional function, are in a position to stop unlawful conduct by withholding their cooperation. And withholding what applicants need is — usually — the registry's way of contributing to law enforcement.

Of course, the land registry (or mercantile registry) is not a private party but a public institution. This difference estranges it from the notion of the gatekeeper as initially conceived. Nevertheless, there is a strong analogy with the figure, if we bear in mind that the first registries only monitored the private legality of transactions between private persons, while today they also monitor the public legality implied in all manner of registrable operations, such as legality in terms of fiscal matters, administrative matters, urban development and, in the very near future, environmental matters. So, when a buyer of immovable property seeks to register his purchase, the registry not only checks for compliance with all the civil requirements necessary for the operation to be valid or effective (e.g. consent, object, cause), but also verifies whether the parties have paid the proper taxes; if the property at issue has been separated from another, larger piece of property, the registry verifies whether the proper licence has been obtained; if it is a question of declaring new construction, the registry ascertains whether the proper building licence has been obtained and whether the work licensed and declared are the same, etc.

In such cases, the registry cooperates in the enforcement of the right in different ways: (a) by refusing to cooperate, that is, by rejecting the entry, as in the case of new works presented for registration without a building licence; (b) by placing a registered guarantee on immovable property, as security for the State when private persons fail to comply with certain obligations (e.g. marginal notes of encumbrance on transferred immovable property, which remain in place until there is proof that the transfer tax has been paid and the tax administration has agreed to lift the encumbrance after checking the transfer's value, for a given time period); (c) by notifying the administration when private citizens fail to provide proof of having satisfied certain requirements set by administrative legislation, and by recording that failure in a marginal note so no third parties are injured by action taken under public faith in the registry (e.g. unlicensed separation of land, according to Catalan urban development legislation); (d) by refusing to make definitive entries and making only provisional entries — at the interested party's request — until proof is given of compliance with certain requirements; (e) by notifying the public prosecutor of the operation in question if it involves committing any crimes.

In cases (a), (b), (c) and (d), the registry may be considered to act as a gatekeeper. Clearly, it also cooperates in other ways in the case of non-compliance, but those forms of cooperation are not within the scope of this paper.

All these cases highlight one of the most characteristic traits of the registry's function: The registry, as a representative of third parties — that is, all those persons who are not parties to the contract or operation in question, i.e., the representative of the community — sees to it that the persons who are parties do not violate imperative rules that by definition impose individual restrictions as a by-product of collective rights (e.g. the community's right that each citizen pay his taxes, or that nobody build to a height of more than a certain number of stories); and the registry does so by refusing to cooperate with the parties when this happens, and even cooperating with the authorities in charge of preventing and suppressing non-compliance. These traits

(3) Compare: Méndez González, F. P., 'Los sistemas registrales como reductores de costes de información y conservación', communication presented at the UN WPLA meeting held in Madrid in September 2000.

(4) It was Kraakman, R. H., who first constructed the figure of the gatekeeper in 'Gatekeepers: the anatomy of a third-party enforcement strategy', *J.L. Econ&Org. 2* (1986). Later, Paz-Ares, C. and Arruñada, B. used the gatekeeper to explain the role of the notary as a producer of public order. Méndez González extended the figure to the analysis of the registrar in 'La función calificadora: una aproximación desde el análisis económico del Derecho' in *La calificacón registral I*, Gómez Galligo, F. J., Ed Civitas, Madrid, 1996.

make the registry an extraordinarily useful piece of any law-enforcement strategy ([5]).

2.1.3. Requirements for gatekeeper effectiveness

In order for gatekeeping strategies to be effective, not only must there be deficiencies in the other law-enforcement systems (as there usually are), but also certain specific provisos must be met, to wit:

Firstly, there must be a service that the violator finds necessary or advantageous in order to achieve his objective and a person who is able to withhold that service. This first proviso involves the legal problem of the advisability or inadvisability, from the efficiency standpoint, of making it mandatory for the registry to render its services in various types of transactions. This is a question that cannot be dealt with in this paper, because that is not our subject here. Let us simply say that, in certain countries, registration is constitutive in all or some cases; in others, it is mandatory; and in others, voluntary, save in certain cases.

Obviously, the problem arises only in places where registration is voluntary. In these cases, one must suppose that, whereas registration is a transaction cost designed to avoid the greater cost of non-registration, parties will invest in registration rationally, that is, up to the point where the investment's marginal costs balance out the benefits of registration.

Therefore, one requirement will be that the registry must produce the greatest possible effects. The second requirement will be that legislation must make the registration system and especially the registrar as independent from the stakeholders as possible.

Secondly, the law must be able to induce gatekeepers to prevent violations at a reasonable price. This is a problem of design that we cannot enter into in a paper of this size, but it is handled well enough in the case of the registry. An analysis of comparative jurisprudence will also show that the costs, both implicit and explicit, diminish when the registrar is paid by the 'residual retribution' scheme, which enhances both the efficacy and the efficiency of the system.

Thirdly, the supply and demand of the gatekeeping service must be such as to ensure the gatekeeper's willingness to play his role and his clients' willingness to accept that role. This third proviso means that the registration system has to be willing and able to prevent violations of the law by withholding access to registration for certain operations, and thus abstain from collecting registration fees.

Among the varied problems involved in this third aspect, the most interesting is basically that of the registrar's independence, which must be preserved and reinforced. The registrar must be independent from both the political authorities (and therefore cannot be hand-picked by them) and the market (and therefore cannot be elected to office).

Indeed, one basic condition required before any gatekeeping system can function properly is the independence and integrity of the persons rendering the service. In the case of registries, these virtues take on dramatic proportions. Should they ever wobble — should registrars ever easily give in to pressure from powerful applicants and fail to close the door on transactions that violate the law — if public confidence in the registries were ever to come under a cloud — the entire institution would fall apart.

All title registration systems meet these characteristics, and the international trend is to evolve towards title registration. Title registration systems are characterised by the fact that, at least where third parties are concerned, the terms of registry entries take precedence over the terms of the titles causing those entries to be made. That characteristic allows this type of registry to produce what is called the public faith effect, whose essence lies in the fact that the third party is only bound by the terms of the registry entry.

Other registration systems cannot perform gatekeeping functions for, since they cannot accredit title to and burdens on immovable property even in third-party dealings, they are no good at all for effectively checking legality. Consequently, such systems can hardly serve as support for law enforcement.

(5) Environmental legislation has all the traits to make it eligible for connection to the registry using the same steps as urban development legislation, or steps very similar to those. A registry of 'pollution rights' might even be put together, like the one registry urban development legislation requires for listing transfers of urban development operations.

2.2. Land registry and environment

Santiago Lafarga Morell, Land registrar

The environment is something that belongs to us all, and as such it deserves to be protected, improved and defended.

From the very beginning, people have always taken protective measures in their private relations to avoid certain kinds of intromissions or meddling likely to disturb their peace and tranquillity. Such measures gave a markedly individualistic sort of protection, based on the concept people held back then of the right to private property. Even at that time, the world of law used to afford private persons certain institutions that indirectly protected the environment, such as certain sorts of easements.

With the passage of the years, a gradual change has come about in the traditional concept of private property. Private property use has been subjected to increasing numbers of limitations to benefit the social goal of more rational private property use. Property is taking on a kind of use that is more committed to and respectful of the environment, with the passage of the years. It is moving from an individualistic orientation to a collectivistic orientation.

While environmental protection can continue to be upheld through private relations, there is a gradual, growing awareness that it must be the administration itself that takes the initiative, as the representative of all our collective interests.

Acting as a guardian, the administration must take preventive measures, whether acting *ex officio* or at the request of a party. That is a priority. Although coercive and punitive action also have their place when necessary, a good preventive policy will avoid making costs higher and perhaps avoid the actual infliction of what may sometimes be irreparable damage.

In all environmental protection matters, the right to information is of vital importance to citizens' interests. A protected environment is value added to the value of the land.

Action to protect the environment is clearly staged on a land-based setting. One institution that may prove highly useful for achieving environmental protection's objectives is the legal registry of goods and persons. Registries of goods and persons report the terms of the entries they hold, and their entries have the same legal efficacy as judicial decisions, because the registry's pronouncements are made on the grounds of registry officials' preliminary check for legal validity.

Through the registry's reporting of both preventive and punitive measures aimed at protecting, improving and conserving the environment, the current and future holders of title to property are obliged to comply with any such measures, and those measures cannot be stripped of their protective force by any changes in title-holder. In addition, because the registry reports the pertinent information, at no time will title-holders be placed in a situation of defencelessness against preventive or punitive measures.

If the registry were to report environmental protection measures, legal information about the ownership of and liens on property would be successfully allied to environmental information, thus keeping the information from being scattered far from where it is needed and making the information symmetrical, which would in turn avoid greater costs and lend greater certainty and protection to legal trade and the environment alike.

Of all the planets known so far, earth is the only one that meets the necessary conditions for developing life. Blanketed by a layer of air, the atmosphere, made up of gases including oxygen and carbon dioxide which, together with water vapour, are indispensable for our existence. Their balance enables the planet to maintain a stable temperature and humidity, yet this balance is increasingly threatened by outside agents reared mainly by the activities of industrial man.

The more industrialised societies are, the greater the amounts of carbon dioxide they release into the atmosphere. That, plus the constant aggression against the atmosphere caused primarily by chlorofluorocarbons, is causing the hole in our ozone layer to slowly but steadily grow larger. It all comes together to cause a gradual heating of the planet that is leading to a climate change known as the greenhouse effect.

If to the serious problem caused by the heating of the planet we add the problem of desertification due to the constant process of

deforestation (sometimes voluntary and sometimes involuntary) and also due to acid rain created by the use of certain energy sources, rendering the land on which it falls unproductive, there can be no doubt that the future awaiting our planet is not a very cheerful one. The constant blows to our world not only may endanger our subsistence and that of future generations, but actually are a deadly threat against the plant and animal life of some regions.

Sometimes, such problems can be traced to poor planning in the development of our societies, maybe because of overpopulation in certain zones. These problems have led us to overexploit our planet, pollute it and in short gradually to destroy it.

Nature by itself does not pollute. Everything nature produces is in time reincorporated into nature. We cannot say the same of the human being, who generates more and more waste, some of which is not recyclable, that is, can neither be reincorporated into the production process nor returned to nature.

One of the elements of our ecosystem that, together with the atmosphere, is the most heavily punished by man is land. If we fail to have a care for the future, as we have said, land can be the object of constant aggression, not only the aggression it receives directly by actions done to it, but also the aggression that can be inflicted on it indirectly, the repercussions it may suffer through other elements that have an effect on land.

The protection of our environment has always been a constant of human history, since environmental protection has always borne a relationship with our quality of life.

In Roman times, there were certain actions and rights intended primarily to regulate good relations between neighbours and to prevent the use of property from leading to an abuse of property, especially when that abuse might harm the people around us.

There used to be, and there still are, things such as neighbourly relations, action to repel claim for easement and the mandatory constitution of certain easements. All these things are fixedly oriented towards regulating our relations with the persons who live closest to us in coexistence, and they are all presided over by the principle of good faith in the exercise of rights, to prevent the use of rights from becoming an abuse of rights.

The main drive behind these concepts used to be to protect property, not only one's own property, but also the property of others — always, however, from an individualistic standpoint on the problem. Any intention to protect interests any wider than the individual's interest cannot be found, neither in the remotest past nor in more recent times.

It is in modern, more industrialised societies that our outlook on the environment has changed from an individualistic perspective to a collective view, we might even go so far as to say a universal view. The environment as collective property that must be preserved and as a common heritage that must be respected. It is at that point that people have begun to talk about striving for sustainable development so that nature itself can maintain its own regenerative capacity.

It is a step, or rather an attempt to step, from rudimentary environmental protection implemented through individual, practically neighbourhood action motivated by private interests, to collective action protecting the interest that we all hold in the environment as a collective thing.

We still keep regulating neighbourly relations conducted by private persons under the principle of free will, yet even so, we also feel that it is the administration's job to monitor for environmental conservation, maintenance and improvement. The administration, as a representative of our collective interests, must care for maintaining our natural resources; it must seek to ensure the proper use of natural resources and it must seek to restore natural resources. The environment must be protected regardless of who owns a particular parcel of it and regardless of the property laws under which it is held.

Despite the collective need, environmental protection is no easy assignment. It is hard to give a definition of the object of environmental protection that satisfies everybody. It is an issue that is tightly interrelated with other sectors, sometimes sectors with conflicting interests. It is an eminently technical issue in which, before making any decision, the first thing that is needed is expert knowledge, which the administration will have to look for in environmental specialists, and which will colour the action the administration takes. It is unthinkable to try and create a good

environmental policy without the help of experts whose studies and opinions ought to show the administration the way.

Sometimes, environmental protection may collide with economic interests that must be weighed, such as the principle of free enterprise. Legally, private interests can intermingle with public interests. In fact, there is debate about whether environmental law belongs to the field of public law or private law. At times, there is a connection between it and such widely differing disciplines as civil law, commercial law, administrative law and penal law. Taking certain measures may also create problems of competence, since the consequences cover so much ground that they may affect different areas.

But, one thing we are sure of is that environmental protection is an issue of international scope wherein the administration, despite the difficulty, cannot afford to take a passive or lazy stance. Environmental protection must act as a framework within which all other activities must take place.

It was in the mid-1960s that social awareness of the need to protect the environment began to arise. In 1972, the EEC assumed environmental protection as one of its functions; however, not until the signing of the Single European Act in January 1986 was Community cognisance over the environment incorporated in primary legislation; later, the freedom of access to information on the environment was acknowledged through derived legislation in Directive 90/313/EEC of 7 June.

With the passage of the years, throughout the different configurations or transformations that proprietary rights have undergone, one observation may be made: environmental protection ought to be inherent in proprietary rights and their use, whether environmental protection is understood as a limitation on the exercise of proprietary faculties or as something already integrated within the faculties comprising the proprietary right.

The social function of property is not at odds with the environment, but united to it. The exercise of the right to private property nowadays can no longer be observed from a purely individualistic, gung-ho liberalist stance, but as part of a collectively-owned property.

As F. de Castro posits, we have to wonder whether we ought to protect individuality or collectivity in regulating our different institutions.

It is a principle accepted by the international legal community that the use of a right cannot be allowed to lead to abuse of that right, and even less may the use of a right be allowed to injure our fellows. For this reason, it is also generically understood that proprietary rights can be limited in view of their social function. This social function will delimit the contents and scope of the proprietary rights. In other words, we are recognising that proprietary rights can and must be limited to benefit a higher purpose that deserves protection. That protection it can receive directly from the law or, alternatively, through social awareness about certain facts or events, maintained over a given time. Our present concept of proprietary rights is not the same as the concept our ancestors held. At current stages of development, events have caused us to take another look at certain ideas or principles that we had always held as valid thitherto. And so the exercise of a right must never be antisocial. The persons who interpret and apply our laws must be given room so that even if the letter of the law does not change, it can be interpreted and applied in consonance with the contemporary social reality.

One might suppose that the environment does not need protection, since its protection is inscribed within proprietary rights themselves, the same as the social use of proprietary rights; and that is true, since there is now beginning to be enough of a social awareness to uphold the idea of environmental protection and to clamour for repair of and indemnification for any damage to the environment. But the question at issue is also one of taking environmental protection measures that are concrete and coordinated.

Many different technical and legal studies have been run to find the best way of protecting the environment, and the more or less general consensus reached is that the best policy for the administration to follow is a preventive policy, although without neglecting that environmental quality must also be improved, not just protected. To

begin with, a good preventive policy can avoid the higher costs involved in environmental repair or restoration solutions.

While we must not necessarily ignore the need to take a punitive attitude towards the polluter under the Community's 'polluter pays principle', sometimes a civil sanction or even a penal sanction can never repair the damage done, especially when the damage to the environment is irreparable or irreplaceable. The best thing is to try to avoid having to take solutions after the fact, when the damage is already done.

But, both when preventive action must be taken and in the case where reparative or punitive action is necessary, both types of action must be guided by the idea that a collective interest is being defended. Environmental protection needs to be based upon principles such as solidarity, objectification of risks and disclosure or information.

There must be solidary legal capacity, both for taking action and for replying to action taken. No problems of pinning down responsibilities in the correct quarter must arise. We must do without the causal nexus. Whosoever performs a harmful activity must be responsible for that activity, and any stakeholder, as joint holder of title to the environment, must be able to ascertain, by means of some sort of disclosure that endows the terms it discloses with legal certainty, what environmental policy is being followed or will be followed in his area, and whether the pertinent measures have been taken to suppress polluters, not only because damage is being done to an asset that the stakeholder jointly owns, but also because the stakeholder ought to be able to take direct or indirect action himself if the authorities remain passive. Citizen knowledge, intervention and decisiveness are necessary, because they are all going to reflect on the citizen's own environment and, in short, the citizen's quality of life. That is why all public and private projects must be subject to an environmental impact assessment.

The environment as a legal asset has a direct impact on land. A protected, utterly pollution-free environment constitutes value in addition to the land's own intrinsic value. For that reason, it is necessary for any citizen to be able to ascertain the quality of the environment surrounding him, for that affects or might affect his property.

Sometimes, the administration has a preventive policy but has to take direct, even coercive, action anyway to protect and regulate the environment, and the action may directly involve the property of the persons suspected of causing the environmental damage. This sort of action might consist in prohibitions or, alternatively, limitations on the property-owners' faculties as such, without limiting the faculties' disposability. At other times, the best course is not to take action squarely aimed at ownership or proprietary faculties; it may be wiser to institute measures aimed at securing some sort of guarantee to help repair any damage caused.

Of all these measures, be they restrictive, prohibitive or securing, the measures that offer the most safety are the limitations, prohibitions and guarantees reported in land registries, and not only because they can be known; in addition, land registries monitor for legality, registered measures are guaranteed to take preference over other measures and registered measures can be enforced quickly.

Nevertheless, so far, since society has begun to wake up to the problem, the action of our public administrations cannot be said to have been very well planned. This is not to say it is unorganised. Perhaps that is due to the issue's difficulty (it is very tightly interlaced with other disciplines, as we have pointed out); perhaps it is the outcome of trying to avoid problems of conflicting spheres of powers with other administrations. The fact is that administration action has generally been rather tightly sector-oriented, and it has nearly always been taken from the administrative stance — action to regulate certain special kinds of property and to protect them from possible meddling and uses by private persons through certain types of limitations, easements and prohibitions.

What we can say is that it has been a constant practice of our administrations to neglect to ensure proper reporting for the growing numbers of limitations it applies to protect special types of property. Administrations still uphold the old belief that the disclosure given by the law is always greater than the disclosure one can get from other institutions that are easy to consult and quick to access. The most that administrations have achieved

by this course of action is a sort of control exercised by some officials, but that control is sometimes rather tricky to enforce in view of the different sorts of terms the different administrations use and the different procedures they use, aggravated by lack of coordination and shortage of resources.

We must try and lay to rest this classic distinction between public reporting and private reporting and strive for a kind of reporting that covers the entire proprietary right without distinction. After all, everything is property; the only thing that changes is who holds title to it.

In an increasingly better-interrelated world, where we can ask for and quickly obtain information online, sometimes even information with legal force behind it, it is still hard for the man on the street to conceive that a foreign citizen concluding a contract while sitting in his country of origin could possibly be aware of all the limitations on assets located in another country under another country's law, unless he has thorough information that can guarantee legal certainty for him.

But the fact is that, apart from sector-specific regulations, the administration has tended to stick closer to the path of penalisation than prevention, perhaps because it is trying to implement a dissuasive attitude with its policy of intimidation through administrative, civil and criminal penalties.

Although the punitive approach ought not to be discarded out of hand, we have already said that it is not the best way. Good precautionary measures aimed at avoiding the damage in the first place can constitute a better measure of justice than punishment can, because they are quicker. Often the damage done cannot be undone, especially when it involves, for example, the elimination of local wildlife or the elimination of the ecosystem.

The fact is that sometimes taking a good precautionary measure will not only result in preventive protection of the environment; it may also inform the present or future stakeholders in advance of the possible consequences of transgression, consequences that sometimes will not stop at civil or administrative proceedings but may lead to criminal proceedings.

Let us then focus on the need for environmental protection through legal measures taken after the proper technical studies, based on the basic principles we have discussed. The administration must be able to take preventive measures both directly and at the request of private persons, depending on the scope and purpose of the measures; and in both cases there must be legal protection, i.e., it must be impossible to place the person involved in a situation of defencelessness. In the action it takes, the administration may have a direct impact on the person involved, or it may oblige the person or persons involved to take certain protective measures to achieve certain aims through agreements among themselves. But both sorts of measures, when they affect property ownership by limiting the range or exercise of the faculties of ownership, will involve in principle a limitation of ownership, and sometimes they may also involve a limitation of the autonomous will of the private persons themselves; nevertheless, in both the one case and the other, they will affect the right in immovable property.

We also see that often land can only be used if licences, permits or authorisations are secured first. When the aim being sought is environmental protection, we must not rule out the possibility of granting such licences, permits and authorisations only if the applicants meet certain requirements that they must also be able to meet through agreements among themselves as private citizens to cede or acquire certain proprietary faculties, without direct intervention from the administration yet under administration supervision.

In short, preventive environmental action must be open to execution directly by the administration via relations between administration and administrated, or indirectly via private relationships supervised by the administration.

The laws protecting certain special types of property have been observed to afford sector-specific protection only, shielding the special type of property under the administration's guardianship but failing to give bilateral protection in the administrated's favour. Of course, this is a problem of sector-specific regulation.

One measure that is easy to take and would yield big advantages would be for the land registry to report certain pieces of property

that enjoy special protection due to their location, historic or artistic interest or their plant or animal life, just to mention a few examples, as if they were catalogued properties. This would be a highly useful measure, not only because it would give private persons knowledge of the situation (with all the possible legal consequences entailed); it would also be useful to the administration, which is the first person interested in having the area in question respected and preserved, and it would facilitate work to monitor for legality, because once the situation is on record in the land registry, it would be known that these properties are subject to a special regime.

If we want to make the administration's action more incisive, one good move would be to report the limitations set for landowners the same as we report property information. That would not only favour the administration's interests (because not only future buyers would be bound by such disclosure), but also help boost legal certainty in real estate transfers. The administration could apply such limitations through prohibitions sometimes, and sometimes through licences and permits that are not granted unless the administration is given easements, or through guarantees to be furnished to secure compliance with certain obligations.

But, in all these cases, we say again, it would be wise not to rely solely on the disclosure provided by law. There are so many advantages in the kind of disclosure the land registry gives to immovable property matters, reporting and definitively binding any purchaser, that we need not rely only on the kind of disclosure afforded by the law to gain knowledge of cases where subrogations in burdens or limitations on the affected lands occur by the force of the law itself. In addition, this course of action would free the property from that particularly hazardous sort of burden that is quite legal but not generally known about, and therefore intentionally or not creates a kind of uncertainty in real estate transfers, because known or not, such burdens are law, and ignorance of the law is no excuse. This kind of burden abounds in special laws. And since even special laws are public laws, as some authors say, their terms ought to be reported.

Assuredly, in order to reach these objectives there has to be some kind of coordination between the environment and the land registry, the same as between the registry and other sectors such as urban development — which, by the by, also needs to be coordinated with the environment.

While appealing to society's environmental awareness, legislators must not neglect private persons and their private relationships. Under a contemporary interpretation of the law, stakeholders must not be hampered from self-regulating their environment themselves, through the different legal figures permitted by legislation. Just as the owners of flats located in the same building self-regulate how they live together, people should be allowed to regulate their own environment within the limits of the law, if that is going to be for the good of the environment. Peace and quiet are highly appreciated values in our competitive society. They too need protection. They too affect the quality of our environment.

We see then that the world of law is equipped with mechanisms for protecting the environment through its different institutions, even though some of those institutions do need to be reinterpreted, moulded to suit current needs and social feeling. That is due (to return to idea we started out from) to the fact that, although people have always been concerned about the world around them, the protection they used to accord the environment was coloured by their interest in protecting the individual and his property. There was no need to protect more generic, universal kinds of assets unless because of the need for individual protection. It is only in recent times when we have begun gradually to feel the need to protect more generic interests as well, interests that are not always easy to pinpoint or catalogue, such as consumer's rights, for example, or the environment.

That is why when the environment comes under attack, the main obligation of the administration as a guarantor of collective interests is to react to the attack and not only seek repair, indemnification or penalisation, but also stop the action causing the damage. That is the important thing. Crimes against the environment are generally crimes that take some time to commit. When there is an attack on the environment, damage is done not only to the landowners most immediate or closest to the focus of origin, but to the entire collective. The administration needs to have the right legal mechanisms to take

direct action against the guilty party, especially against the guilty party's assets, so as to guarantee not only the violator's compliance with any penalties and pecuniary indemnities, but also to stop the violator's harmful action or make up for the violator's harmful omission. The administration's action must not be hampered by any changes in asset ownership, and so the administration needs to be able to count on the help of the institution of the land registry. If the administration submits administrative, civil or criminal proceedings (which in the first instance are usually aimed at stopping the injurious action or making up for the omission) to the registry as quickly as possible, the registry can then be used to enforce the guilty party's punishment or civil or criminal liability.

When an environmental violation is committed, the administration must be able to act not only *ex officio* but also at the request of private persons. Its action, while complying with the requirements established by law and having a care not to strip the violator of his legal power to defend himself, must be directly enforceable. But, within that action, the administration must be equipped with different kinds of resources, for everything from stopping action, to rescinding concessions, to applying certain limitations or easements. And, after the damage is quantified, the administration must be able to file for the proper indemnities, using the assets of the guilty parties to secure compliance.

Independently of administrative action taken when the environment is injured, there will always be a place for civil or criminal action claiming damages or laying charges of crimes. In both the former and the latter case, the action must be given access to the land registry, especially when the damage involves or is done to a specific piece of immovable property or may have a direct or indirect repercussion on the ownership of a specific piece of immovable property.

Sometimes, civil action cannot only be aimed at claiming payment for damages. Claims can also be designed to avoid the repetition of similar damage in the future, by imposing mandatory easements.

But, just as the administration must be allowed to take immediate action to keep ecological damage from increasing, the different jurisdictions involved must also be allowed to take precautionary measures to avoid not only an increase in the damage but also an undesirable lengthening of processes. Whether administrative, civil or criminal, any process that lasts too long becomes a sham in the end, because by the time a verdict is reached the guilty parties' assets have vanished. To prevent all these environmentally harmful consequences, which are actually harmful to us all, the pertinent precautionary measures must be taken so that at least the assets of the guilty or allegedly guilty parties are tied up until the process is over. Once such measures are taken pursuant to current legislation, the outcome of the process is immune to changes in asset ownership or encumbrances designed to reduce assets' value and thereby cause loss to us all.

2.3. Registry reporting of environmental limitations

Vicente José García-Hinojal López, Land registrar

The rule that has had the greatest influence on how access to environmental information is envisaged is European Community Directive 90/313/EEC, since until the Aarhus Convention it was the only rule in the international sphere that gave the right to environmental information to all persons in general.

The Aarhus Convention gives natural or legal persons the right to access to environmental information held by public authorities, but with two refinements or advances over Directive 90/313/EEC. First, it stresses that the citizen is not obliged to prove any interest, although even so it is considered that the citizen may find it useful to give reasons in his information application, to enable the official in charge to do a better job at finding the required particulars; second, it envisages access to information as a right, thus following the doctrine settled by European Court of Justice case-law.

The convention includes within the concept of environmental information not only natural resources and noise, but also landscape, the status of cultural sites, human health, safety and living conditions, substances, energy, radiation and all kinds of measures that concern the environment, including voluntary agreements between public activities and companies. This reference to agreements is a nod to the issue

of self-regulation, that is, the strategy designed to reach environmental objectives by means of negotiation between the public authorities and economic partners. In other words, both the convention and the directive are basic at the international level, because of both the type of information they concern and the fact that they are not circumscribed to a concrete ecosystem or aspect but rather pertain to all sectors of the environment.

As we have seen, the Aarhus Convention establishes the principle that public authorities are obliged to provide information. This concept encompasses all *de jure* public administrations plus the persons who exercise public functions or render public services related with the environment.

This definition might engender dysfunctions between States, since not all countries hold the same concept of what services the public administration ought to render. However, thanks to the broad, functional concept outlined in the convention, the definition neatly covers all cases where the public administration delegates its functions to other organisations.

Now then, just because the right to information as envisaged in the convention is so broad, that does not mean there are no exceptions made for interests that are in need of protection.

The guarantees the convention includes are the following:

(a) Use of a restrictive interpretation of the grounds for refusal, based on weighing the public interest in the information's release and the relationship between that information and environmental emissions.

(b) Evaluation of the opportunity to provide information, thus eliminating aspects that are so confidential as to be contrary to the protected interests. This would cover the protection of public interests involving, for instance, matters of national defence, international relations, public safety and criminal or administrative enquiries concerning the environment, and also private affairs such as intellectual property, commercial and industrial secrets and information provided voluntarily by a third party.

In any case, the convention urges officials to provide citizens with guidance so they can obtain the information they are truly interested in. If this is done properly, many problems can be avoided.

Lastly, with respect for the deadline for providing this information, while Directive 90/313/EEC says that public bodies must reply to the interested persons as soon as possible and within two months and must state the reasons for refusing information applications, the Aarhus Convention cuts the deadline back to one month, which may be expanded to two months when duly justified by the volume and complexity of the information requested, without the alternative of silence signifying refusal. In other words, there are only two options of response to the application: to grant it or to refuse it for a justified cause.

Now that we have been introduced to the international legal framework, let us focus on the issue at hand. Pursuant to the statute of disclosure, we can define 'reporting' as any activity whose object or end is to make knowledge of a thing, fact or situation public.

According to Pugliatti, the two main components of reporting are knowledge and dissemination. Nowadays, however, that phase has become outmoded and we must take a step farther to distinguish between reporting on the one hand and publication and notification on the other. In other words, we must distinguish between news reporting and effect reporting. Taking this line of thought a step farther, we could define 'reporting' as Chico Ortiz does, as that requirement which, when added to the requirements surrounding legal situations, ensures the ownership of rights against all other people and protects any person who acquires the right on the basis of faith in the reported pronouncements, thus facilitating credit and protecting legal trade.

This is where the field of registry reporting shows its true face and real importance. Registry reporting makes the land registry a good technical means for reporting immovable property relations and thereby attaining legal certainty in trade ([6]).

2.3.1. The land registry and environmental disclosure

The need for environmental protection is increasingly being envisaged as a two-headed concept, both a right and a duty of citizens

and States. This standpoint inexcusably requires legislation that looks at the different aspects and ways of focusing on the question and regulates the question's various manifestations in both the preventive and the standardising aspect. And legislation must not neglect the vital question of the need for the necessary means of reporting, to ensure the real effectiveness of environmental protection.

The land registry is an institution that can prove indispensable for accomplishing this goal inside the areas stated in Article 174 of the Treaty establishing the European Community, since it can be fully coadjutant in successfully protecting and disclosing the various environmental manifestations needing protection, whereas land registries are located throughout the Union, they keep records on a property-by- property basis and they provide the same disclosure to all parties concerned.

Laws state that before rules can take effect, they must be published in official gazettes or journals. By the mere fact of being reported publicly, they become binding, and no one can claim ignorance to avoid having to comply with them. In the field of the environment, where there is a swarm of rules of different origins and ranks pertaining to each piece of property, depending on where the property is located, relying on that kind of reporting is silly and will just create more ignorance, which is contrary to legal certainty. If we want full legal certainty, reporting is not enough. Full legal certainty requires proper reporting. Thus, Article 129.9 of the Treaty on European Union, under the title 'Consumer protection', says that the Community shall contribute to the attainment of a high level of consumer protection through specific action to support and supplement the policy pursued by the Member States to protect the health, safety and economic interests of consumers and to guarantee adequate consumer information.

For this purpose, although we have seen how the Aarhus Convention establishes the general principle that no special interest need be proved to get access to information, in the concrete case at issue in this paper (that is, the reporting of environmental limitations on specific pieces of property), for the sake of legal certainty and for the sake of the protection of registered rights and their holders, plus the interest of third parties, I feel that the applicant ought to show evidence of some interest, be it only an alleged or token interest.

2.3.2. Mode of recording environmental situations in the land registry

In order for the land registry to be able to report environmental situations involving specific pieces of property, those situations must have been registered in an entry first. The entry could be an entry in the true sense of the word, plus a marginal note of the legal modification; the note would have its own terms. A registration procedure might be used that is similar to or inspired by the procedure Spanish law follows for urban developments. If so, we could count on having the vital support of what are termed 'reference notes'. These methods could be used to reflect and report, *inter alia*, the environmental limitations, ties and easements on each piece of property; the rights held over them via administrative and/ or administrative concessions; preventive measures, punitive measures or indications that proceedings of various sorts (criminal or administrative) have been initiated; the important question of environmental impact assessments (facilities, infrastructures and works projects must run an environmental impact assessment before their builders can secure a licence to begin work); and licences or concessions of rights and authorisations for their transfer.

So, once the environmental situation of each specific piece of property is entered in the registry, that is going to allow us to provide and the stakeholder to obtain a complete report of everything about the property, i.e. a full legal and economic report of every particular. Reporting will get environmental situations into the marketplace, whether those situations are good (property value added because of ownership or expectation of ownership of environmental rights entailed in the property, and the obvious

(6) In Spanish registry law, the substantive aspect of reporting is twofold:
1. Positive, which means there is a double presumption:
(a) It is presumed, juris tantum, that what the registry says in its records is accurate and full, even if there is proof otherwise.
(b) Presumably, it becomes juris et de jure in favour of any third party who has acted in good faith, relying on information reported by the registry.
2. Negative. Anything not registered in the registry will have no effect at all for a person who enters into a contract while relying on the contents of the registry.

consequence of the possibility of taking mortgages on that increase in value) or bad (e.g. attachment, restrictions on ownership, limitations on free transferability of property or environmental rights, registry notations of lawsuits, etc.). In short, the registry office will become environmental protection's indispensable helpmeet, ready to state the existence and boost the effectiveness of precautionary and restorative measures. It will be a basic, essential part of environmental management, by which we mean the set of actions and provisions necessary to successfully maintain sufficient environmental capital so that people's quality of life and the quality of the natural heritage are kept as high as possible.

2.3.3. The registry office and reporting of its contents

This is the phenomenon known as formal reporting, that is, the means whereby interested persons are given knowledge of the contents of the registry. If we take a pointer from Spanish mortgage law, I feel the environmental situations affecting property can be reported by means of simple information notes and registry certificates.

Let us consider how the impact of environmental questions is even now altering the concept and traditional content of proprietary rights. And it will alter them even further in the future, plumbing to heretofore unsuspected depths the social function of proprietary rights, which is augmented by the apparently irreversible nature of the degradation of the environment and the extinction of natural resources, which until recent times were considered imperishable. And let us consider how the impact of environmental questions is pressing restrictions and checks on proprietary rights, which the French revolutionaries went so far as to consider 'sacred and inviolable'. Now then, considering all that, the land registry should not be content with being a mere news-reporting information office, but should aspire to report effects as well. Effect reporting could include, among other things, within the territory of each registry:

- information about communications infrastructure;
- information about acoustic maps;
- information about land pollution;
- information about the pollution of bathing water in coastal areas, according to the Community directive on the quality of bathing water;
- information about the amount of pollution in inland waters;
- information about land uses;
- information about deforestation.

Here lies the thrilling possibility of influencing Community environmental policies. The registry is established throughout the territory; its records are organised on a property-by-property basis; it is incorporated in the environment. So, using modern technology, it must be enabled to gather and agglutinate all the information about the various environmental rules affecting its territory and thus give general information. This can be done through interconnections with local governments and cadastres, and with specific information on environmental legal action affecting each piece of property, both to its benefit and to its detriment. And that includes cartography and georeferences to complement the legal and economic information provided by the registry, which would furthermore enable registries and local governments to exchange information, say, in changes of ownership of title, entries made and removed in cadastre offices, censuses, tax rolls, etc.

2.3.4. Conclusion

I, like Va Aguaviva, consider that we must strive to get the land registry empowered to act as an information office, with the specifications I have mentioned, to enforce the specific reporting and information measures the administration must apply in order to guarantee legal certainty, so that, in addition to providing the reporting it is charged with as an institution, the land registry can facilitate, in some differentiated way, information on the laws affecting property and registered title ownership.

The land registry could go further and remit information on changes in ownership to the competent institutions, and it could furnish a real guarantee of compliance with obligations such as penalties, where subrogation is not an alternative.

Citizens' legal certainty and certainty in trade demand an information office that will render the market transparent.

The land registry, as an independent territorial institution that generally provides and guarantees certainty, must fulfil that role to complement the purpose for which it was created.

In other words, the registry office can and must be considered a basic element for the proper, orderly management of the environment. With the registry by its side, environmental law — i.e., the set of rules, principles, institutions, operational practices and legal ideologies that regulate the relations between social systems and their natural environments — will rest complete with a proper system of registry reporting. In practice, that would mean that the traditional relations between environmental law and the big branches of law — civil law (extra-contractual liability), criminal law (eco-crimes), administrative law (licences and environmental impact assessments), Community law (European Union environmental directives and regulations) and tax law (rates and eco-taxes) — could also incorporate registration or mortgage law. Private law would then not be circumscribed to the realm of extra-contractual liability when environmental matters are at stake (as in the classic view), but could expand to encompass the realm of legal certainty in trade and reporting of environmental legal situations involving specific properties, thus enabling those properties to be incorporated in economic trade.

All the foregoing will be reflected in the so-called 'ecological' image achieved and reinforced by means of mechanisms such as:

— action to protect the environment in production processes as well as products;
— publication of environmental situations via the land registry and, in the right sphere, the commercial registry and;
— legal verification of the validity and operability of such action.

In other words, to fit the land registry and registration law into the appropriate part of environmental legislation (an indispensable tool of public environmental management, consisting in the preparation of environmental protection rules that set certain goals to be met and a series of measures for reaching them). However, the system must include a complete, effective system of reporting the particular environmental situations involving each specific piece of property to third parties, with third-party enforcement guarantees, taking advantage of the fact that the land registry is organised on a territorial basis and orders its records on a property-by-property basis, with the due use of technological infrastructures to permit appropriate monitoring and legal certainty in environmental matters, legal certainty in trade and economic development.

2.4. The registrable title

Marta Valls Teixidó and Mercedes Tormo Santonja, Land registrars

This section of the paper tackles the issue of the formal aspect of the documents to be submitted to public offices in charge of reporting the measures, decisions and solutions taken in regard to property involved in environmental questions.

After a brief historical overview, we shall establish the conditions of form and content that the document must satisfy in order to guarantee the rights of both third-party purchasers and property owners in a reporting system, within the limits of respect for the environment.

Let us make it clear that we are merely discussing the question as it concerns registrable titles and documents. We shall not touch upon access to the registry, or rather to the registry office, by environmental limitations that are not required by law to be recorded in the entry for the property in question.

In ancient minds the right to own property was seen as unlimited as far as what might be considered the 'use and abuse' of the faculties of property ownership was concerned. If we compare that with the present situation, where restrictions and limitations are placed on the faculties of the owner of the fundus by imperatives including environmental protection on the basis of the principle of sustainability, to make sustainable the economic development we need so that our fellow human beings and their descendants can live decently in a healthy biophysical environment, as the 1972 Stockholm Summit advocated, we can see that the right to own property has indeed evolved. Far from remaining at a standstill, it continues on its way. For example, we have seen in the foregoing sections of this paper the enormous number of limitations or restrictions that are becoming increasingly advisable for us to lay upon the concept of property in the traditional sense, and how in practice new figures are being born on the strength of environmental needs, some of them still lacking legal regulation.

Now that we recognise how useful it would be to us all if certain environmental decisions were recorded in the land registry, we must decide what documents are going to constitute a valid instrument for conveying such decisions to the registry. Given our tendency to place more and more limitations and prohibitions on proprietary rights, we might discern two phases in this evolution, which reflect in two different ways how limitations gain access to the registry. Depending on the state or level of development of the country in question, these phases are:

The current phase, or developing States phase, where most legislation places limitations and prohibitions on the way proprietary rights can be used, but nevertheless the ruling principle is that, in general, all kinds of meddling and interactions with the environment are allowed save those that are expressly prohibited or exceed the established level of sustainability or rational use.

The future phase, or States where the level of legislative evolution has reached a point where it declares as prohibited or not permitted all kinds of interactions with the environment (except breathing and other interactions that can be considered elementary), and the environment — water, air, ground — is considered an asset owned by the State on behalf of all citizens, and use of or interaction with the environment is allowed only through titles or specific authorisations for specific, concrete acts.

The States in the developing phase or current phase can be considered to include all the States in our sphere (the EU). They are concerned about the environmental issue and have been very specifically committed to it since the approval of the Single European Act of 17 and 28 February 1986 and the Maastricht Treaty on European Union of 7 February 1992. Due to the great number of forms, manners and procedures in which environmental limitations and obligations can be applied, we will find a wide range of types of title documents, which can be roughly grouped either as administrative title documents or documents signed by private persons with the formalities required by Member State legislation or judicial documents.

2.4.1. Administrative title documents

(a) **Administrative certificates or decisions** issued by the authorities to establish certain absolute prohibitions on emission or use or other limitations for a given zone (for example, a zone located in a natural park or specially protected area). The authority in European Union matters will be the commission in charge of environmental enforcement, Directorate-General XI, although there are special directorates in agriculture, energy and transport and Member States may have powers that they can assume directly.

The competent EEC or national authority for initiating the process and delimiting and imposing restrictions, limitations or encumbrances on a zone for environmental reasons must abide by a procedure that legislation must carefully regulate. In that procedure, the owners of all the properties involved must be called in, and so must the owners of all the real rights pertaining to those properties, and they must all be told of the limitations or prohibitions that will be placed on their belongings under the procedure. At the end of the procedure, the authorities will issue their decision, which must describe the property or properties involved, state that the registered owners of the land and other real rights have been called in, and clearly state the limitations or prohibitions placed on the property's use for environmental reasons. The decision itself or, as applicable, a certificate of the decision made out to one or more of the properties involved, will be the registrable title. It will be recorded in the registry in an entry, and it will constitute an encumbrance on the property.

(b) **Administrative decision given as a concession or authorisation** if it affects the conventional ownership of State water or land or the atmosphere. In its decision, the administration must watch closely for compliance with the concession conditions, mete out fines and penalties and oblige transgressors to compensate for damages.

The procedure will begin at the request of the interested person. In concessions or authorisations, the owner of a given property will be authorised or conceded the right to emit or to release into the

atmosphere or environment in general certain quantities of products, noises, etc., in excess of the rational or sustainable threshold that is considered allowed to everyone in general. The right, or the faculties granted in the concession, will necessarily be linked to the particular piece of property, so although the right may be independent or transferable, it will always pertain to a certain piece of property (for example, because the property is located in an industrial park), and it will stem from the property as a proprietary faculty.

This document is an administrative title issued by the competent authority according to the legislation of the country in question. In it, there will be a description of the property and the rights being granted. If it is a concession, it will be recorded in an entry in the registry, where all the conditions set in the administrative decision will be reflected. If it is an authorisation, it will be recorded in the form of a note in the margin of the property's entry. It will not be considered an encumbrance, but rather an added right or faculty that can be detached from domain and is therefore transferable, as we shall see.

(c) **Licences** issued by the administration at the property owner's request, to perform those acts for which State legislation purposefully requires licensing, such as factory construction, farms, planting, woodcutting operations and highway construction. In all these acts, certain environmental conditions can be set that must be met in relationship with the property involved. Most of the time, these conditions will be set as the result of the environmental impact study that must be run before the act is eligible for licensing. The environmental impact assessment authority may demand that certain inescapable conditions on the concession be recorded in the registry before granting the licence, or it may demand that conditions or obligations be written into the body of the licence. Both the licence itself and the decision of the environmental impact assessment authority, which requires proof as a prerequisite, would be admitted for entry in the registry. The title necessarily requires a description of the property and a detailed list of the limitations or obligations on the landowner that directly affect the property. These particulars will be recorded in a marginal note by virtue of the administrative document issued on behalf of the Community or State authorities.

(d) **Administrative document granting a subsidy** for a given business that at the same time places obligations on the property owner that tell him what businesses can or cannot be run on a certain property and therefore can be envisaged as limitations on domain. For example, economic aid for environmental retrofitting for old industries can consist in grants, tax breaks or qualified loan conditions. The aid would be recorded in a note in the margin beside the property's entry, and it would be an encumbrance on the property, so anyone acquiring the property after that would know that the property is subject to compliance with the obligations placed upon it when the subsidy or benefit was given, and that failure to comply with the obligations would give rise to the loss of the subsidies or benefits and entitle the administration to take back the sums paid out or to return the property to its previous condition at the property's expense.

(e) There is **mandatory insurance** that can be taken to palliate civil liability for environmental pollution. Such insurance can be demanded as a prerequisite, to be taken before a concession is given, and subsequent entry in the registry can be made to depend on whether or not the insurance is actually taken. In this case, proof that the insurance has been taken, in the shape of an insurance company certificate, would be a complementary document for subsequent registration of the title to the concession.

(f) Cases of condemnation under sovereign right of eminent domain will be entered by virtue of the **administrative certificate of condemnation.** The entry will give a due explanation of all the steps followed in the condemnation procedure, which do not have to differ from the steps currently regulated in each State's legislation. An extra 'cause of condemnation' would just have to be added, the environmental cause, which can be justified by two reasons:

One: As a penalty, condemning the property that is in violation of environmental measures, in a procedure lodged against the registered holder of title to the property and including any appropriate indemnification.

Two: Condemnation can also be employed in cases where, for reasons of public use, the authorities decree it necessary to expropriate certain zones of land (actual land or the right to emissions or dumping on it) or atmosphere that they especially want to protect from all fluids or dumping. In these cases, a procedure will be regulated in which the owner of the property to be condemned must necessarily be called in, and if it is emission rights that are to be expropriated, the owner of the rights and the owner of the land they pertain to (if there are two different owners) will both be called in, as will the owner of neighbouring properties that may be affected indirectly. Legislation must state in what cases an appraised price should be paid. As the outcome of this process, a certificate will be issued by the acting administration describing the essential circumstances of the procedure, especially the summonsing of owners and encumbrances on the properties, and the declaration of the need to condemn and to pay an appraised price.

(g) The registry will also be an instrument of disclosure for violations, because it will report **the penalty or fine in a marginal note** if the penalty or fine is confined to a single piece of property, or it will report the guarantee furnished to ensure compliance.

The decision applying the penalty will likewise be a registrable title. It must always give evidence of the process that has been followed, so as to avoid rendering the owners defenceless.

(h) For polluted atmospheric zones, it is possible to record the **declaration of polluted land in a note in the margin of the entry** on the affected property by virtue of the administrative certificate so declaring, and that will serve the reporting function for later potential purchasers of the property.

(i) When the administration initiates a proceeding on a piece of property to ascertain whether that property complies with the environmental measures demanded of it (because the land has previously obtained a concession, licence or authorisation, or because activities take place on it that need some kind of authorisation or permit that they do not have), any writ the authorities issue asking to record a caveat on the property due to a proceeding's having been initiated must be allowed access to the registry. Regulations must require such caveats to have an expiration date, which could be four years (as it is in Spanish legislation) or shorter, since environmental processes must be settled more quickly if we want them to be truly effective in practice. A guarantee of enforcement is no good if in practice the damage done may, with time, become irreparable.

In any event, the administrative document must be issued by the competent authorities, whether European Community or State authorities. Since environmental law intermingles with various other subjects or disciplines of law, clearer legislation might be desirable in this respect, and it would be a good idea for the various regulations of the procedures to be followed to be absolutely clear about which authority is competent to handle each case.

The European Community holds competence in protected supranational spaces, so it tends more towards federative-type solutions. As opposed to the European Parliament, whose decision-making powers are scant, the Council is in reality the Community's highest rulemaking body, and it is the Council's duty to take pragmatic decisions and environmental measures, since it is made up of representatives from the Member States.

The different States will adopt the Council's directives, while autonomous regions will apply EC regulations directly.

2.4.2. Documents signed by private persons with the formalities required by Member State legislation

There is a great number of acts related with the environment that private citizens can set down in authentic documents. We ought also to make a brief mention of the principle of free will in this connection. Practice can lead to the birth of figures designed to achieve the objectives set by environmental legislation

through channels that are licit but not yet regulated by law. Registrars' examination of such documents for due form is terribly important in such cases, to ensure that the documents' terms abide by the spirit of environmental law in cases that are not yet regulated. It will be environmental law's job to investigate and subsequently to define the new figures that pop up and to decide what can be the object of licit legal trade. Certainly, the faculties of ownership that have always been considered inseparable components of domain up to now may begin to be peeled away into separate objects, and we will have to determine which of them can indeed be independent objects of trade. With today's outlooks, here are a few examples:

- A document by whose virtue a landowner waives the option to certain types of emissions on a property and conveys them to others. In this case, the waiver would function like a restriction the property's own owner has placed on his own proprietary faculties, something like an easement.

- Also within this category is the sale of what the American media have called 'licences to pollute', discussed in the October 1990 version of the Clean Air Act for cases where an industry reduces its pollutant load by modernising its technology or some other means, while the area's maximum qualitative assimilation limit remains constant, so the resulting surplus can be sold off. Industries can use what are known as 'pollution banks' to facilitate the transactions that allow new industries to move into the area.

- Other practices are also feasible, such as expanding one's pollution quota by taking advantage of unused shares (like urban development transfers).

Documents executed by the owners of several pieces of property to establish links between their properties, so as to create a zone having certain characteristics qualifying them to obtain licences for certain activities or to preserve the property from certain activities. For example, a farm owner may thus link his farm to the environmental space of adjoining properties, so that the load of waste from his farm can exceed the limits set for his property alone. Or a campground owner might link the biosphere of adjoining properties together for the ultimate goal of establishing a pollution-free protected animal park, which would make his campground more attractive.

The document must be executed with all the formalities legislation requires, by the owner or owners of the properties encompassed by the use or affected by the transfer, and also by the owners of the registered or noted rights on any properties that are also affected by the transfer. The transfer will be recorded on the folio for the property that benefits from the transfer and noted in the margin of the folio for the property making the transfer.

We need not go on to mention all the commonly accepted kinds of contracts, such as mortgages (especially the unilateral mortgage) securing the fulfilment of obligations (in this case environmental obligations) and swapping, conveyance and sale agreements, which remain fully under the umbrella of current regulations as long as their object of trade is licit.

2.4.3. Judicial document

The legal realm is growing in importance with the clearly international phenomenon of 'cross-border pollution', that is, pollution whose origin lies in one State and whose effects spread beyond that State's borders, causing situations that involve the jurisdiction of more than one State. The same effect but in reverse occurs in cases of 'pollution exporting', when the very sources or risks of pollution are moved beyond national jurisdiction. The negative consequences have been discussed as early as in Article 130r of the Treaty on European Community. Article 130r also deals with the need to draw up an environmental policy that respects the conditions of the environment in the different regions of the Community, thus avoiding what are called 'pollution havens', which form when due to an inequality in some Member State's legislative demands concerning the environmental issue, domestic enterprises are placed at a disadvantage against the products of other, less demanding States.

Once a conflict is established as having been internationalised, international jurisprudence — that is, the jurisprudence created by judicial courts or courts of arbitration — is relatively scarce in international environmental law, although in recent times there has been growth. International jurisprudence has grown from an arbitrators' decision on the 1941 deTrail jurisdiction case to the creation on 19 July

1993 of a special permanent division for environmental questions at the International Court of Justice.

Nowadays, the job of environmental watchdog is done by the States party to conventions regulating the various sectors of environmental protection.

Sometimes, certain functions involving control over the application of international environmental protection rules could be done through competent international organisations. In the European Community, such organisations would have judiciary backup. The Court of Justice of the European Communities has already handed down plentiful case-law, and the same can be said at the Council of Europe level about the recent case-law of the European Court of Human Rights. While the evolution of international environmental case-law is gradually becoming consolidated, other efforts have been made aimed at creating a international environmental court under the auspices of the United Nations. Only when the EEC's International Environment Court is fully implemented can we talk about effective control over compliance with environmental measures and achieve their coercive goal by reporting the court's decisions through instruments such as the land registry.

The registry can leave a record of all firm court decisions that contain an environmental penalty or place limitations on a given piece of property. Once those decisions are on record in the land registry, third-party purchasers cannot claim ignorance.

Whenever a prohibition against doing something is imposed, it will be recorded in a marginal note or an entry, and it will constitute a burden on the property.

Obviously, writs of attachment will be very important for judicial enforcement of environmental debts in compliance with the requirements already presently established for all enforcement procedures, to wit, a procedure is filed against the registered owner, payment is demanded, and then an attachment is thrown on the property and noted in the registry by virtue of the judicial authority's writ.

Boiled down to the bare essence, a judicial document will be constituted by a firm decision handed down in a procedure lodged against the owner of title to the property on which the real prohibitions, limitations or sanctions will have an effect.

In the second case, which still lies in our future, we go on the assumption that, except for essential uses, all emissions into the atmosphere, water or land are severed from the faculties of domain by law. Therefore, the elements of land, air and water involved in environmental law are under State protection, and as such they are envisaged as part of the public domain. In these cases, the only way to enjoy the right to interact with the environment is to win an administrative concession.

First of all, a right would have to be established to cover the transition phase until this ultimate stage is reached. In principle, we would have to respect acquired rights, if they are properly proved. Proof could be furnished through:

- A notarial certificate attesting to the legislative terms for ensuring continued respect of the acquired right. In this case, the certificate could be recorded in the registry, either under the property at issue or, if legislation envisages the faculty as a concession obtained via acquired right, it could be recorded in the registry as an independent property or right.

- Also, in this case, the acquired right could be accredited by an administrative decision that proves a right has truly been acquired and the conditions it entails. The various administration proceedings, authorisations or relations the individual has been involved in would have to be checked first. Access to the registry would be gained with a certificate from the competent administration, stating the scope of the right and the properties it refers to.

Once acquired rights have been respected, we would have to distinguish between the following:

Habitual uses necessary for basic human life, such as heating exhaust pipes. A simple authorisation or permit with preset limits would be granted automatically for these uses, say, when the building permit is granted.

All those uses that are classified as not necessary or basic. For them, an

administrative title of concession would have to be obtained in a procedure especially established by legislation. Legislation would have to regulate the concession's access to the registry and say whether it is a quality of or encumbrance on the property, or whether it is an independent right.

Although this phase may appear far off, just think that while the elements comprising the environment will probably not all at once be declared to belong to the public domain, some of them will, and when that day comes it will only be possible to use them through concessions. Consider the case of water in Spain.

Lastly, we ought to speak about the means for recording the extinction or performance of measures, limitations or conditions in registries. The means can vary, from setting an expiration date after which the marginal note would be cancelled, to requiring an administrative decision from the same authority as imposed the limitations or conditions in the first place with proof of compliance, to having the private parties sign a document voiding previous accords by joint agreement. And in any case, a firm judicial decision decreeing the limitations, conditions or accords cancelled would always constitute valid means.

Conclusion

Briefly, in conclusion, we feel that the general philosophy of legislation, whether European Union legislation or the legislation of Member States, must head towards using the land registry to record various environmental decisions, but not all of them, just the ones that are aimed directly at one piece of property and are of import to third parties because they somehow involve a decrease or increase of the property's market value due to obligations, limitations or sanctions. It is not a question of making our registries a welter of information that is of no real importance. It is a question of incorporating in the registry only that information which is useful, in the clearest possible way and for a given length of time, depending on how cancellation of the information may be facilitated.

In general, both administrative and judicial titles, which must have access to the registry, must be the outcome of a correctly observed procedure established by legislation with sufficient guarantees for all the title-holders involved. Registrars must be able to examine all the essential requirements for compliance in those countries where registries are not simply administrative in nature.

Documents executed by private persons and liable to registration must be subject to the country's general rules of contracts, to start with. All documents that are open to examination for due legal form at present must still be examined for due legal form. The object of trade must especially be examined; as we have said before, since this is a developing issue, the parties may, in the exercise of their free will, create figures that legislators have not yet conceived of. The vast importance of having registries headed by persons with legal training will be reflected here.

In all these cases, the documents can be incorporated in the form of paper or electronically-stored data. Thus, judicial documents as well as administrative documents and documents signed by private persons can have online access to the registry, provided that they meet the requirements of merits and document integrity set by legislation, and always within the framework in Directive 1999/93/EC of the European Parliament and the Council of 13 December 1999.

3. The land registry as a medium for guaranteeing punitive measures in the environmental realm

Luis Alfredo Suárez Arias, Land registrar

Abstract

Land registrars' cooperation can be especially effective in restoring ecological order after it has been upset by illegal actions.

The information on record in the registry must include both obligations to restore the environment (means and deadlines) and economic penalties laid on polluters, and it must guarantee compliance.

The job of policing (monitoring or checking the application of the law) is one of the classic things land registries do and a field to which registries can contribute long experience of effective, proven action. The registry is known to be the right kind of institution for lending a hand at demanding compliance with urban development and farming laws.

Legal provisions on farming and urban development (and legal provisions on the registry too) have the territory as their basis of action. Protection of the law in matters of rural and urban land use is a complex task that not only involves the administrative authorities, who must police in the strict sense by physically inspecting the territory and imposing any deserved penalties; it also involves other public institutions, such as land registries.

Land registries' usefulness in policing resides fundamentally in the fact that land registries are bodies of **permanent information**. Registries' reporting of administrative policing actions is the most effective way of making those actions known to all, by means of quick, easy, ongoing access.

Private citizens and all interested public administrations can find out through the registry, at any time and practically in real time, about the fulfilment or non-fulfilment of the legal obligations to which the holders of land rights are subject. The registry also gives information about economic sanctions and guarantees their payment.

All the foregoing of course has a dissuasive effect on the persons involved, and that stimulates **voluntary fulfilment** of legal obligations.

The opportunity to transplant this effective experience to the realm of environmental legislation is not to be missed. Not only can land registries help out in the task of territorial policing in the strict realm of information about penalising measures imposed due to breach of legal duties of environmental conservation, or measures taken to secure the payment of economic penalties or indemnities; the registry's cooperation must and can cover the entire wide range of actions involved in **restoring** the upset ecological balance, a concept that, as we shall see, is much broader than mere wrist-slapping.

We must not forget that the job of prevention — keeping ecological damage from happening in the first place — must take priority over the job of restoring or curing the damage already done. Reporting/disclosure has great dissuasive impact on potential wrongdoers: The known polluter will find it more difficult to do further harm to the environment; he will have difficulties getting credit and getting a good price for his real estate; he will suffer social discredit. In short, the possibility of society's getting ongoing access to knowledge about unfulfilled ecological obligations will reduce the number and importance of unfulfilled obligations in a relatively short time.

Requirements

There are fundamentally two requirements for land registries to report measures to restore ecological legality:

1. Environmental violations **that can be physically pinpointed**: whereas land registries are organised on a territorial basis, it is necessary to pinpoint which territory the ecological offence affects.

This requirement is easy to meet. If we take into account the fact that registry information deals with land, subsoil and continental waters (and it would not be too hard to extend the range to include air or atmosphere, whether in connection with the underlying land or not), ecological wrongdoings can be connected with the territory both by delimiting the **affected territory** (land, subsoil or flight area) and by pinpointing the location of the polluting **source of emission**. It is generally quite easy, for example, to spot the origin of pollutant atmospheric emissions (chimneys, exhaust pipes), aquifer contamination, radioelectric emissions, sound waves and light pollution, just to mention a few cases, just as it is easy to fix the location of the use of pollutants in agriculture or mining or the abusive felling of forests.

In each case, the information on the violation would be given in connection with the land causing or affected by the environmental offence, and without prejudice of the possibility of also giving the names of the persons subject to ecological proceedings, if applicable national legislation deems that information necessary.

2. The possible violator's right to a defence: A second indispensable requirement of land registries' disclosure of measures to correct the ecological situation is that the administrative or judicial proceeding must state that the registered holder of the title in question has had the opportunity to be heard, as a means of ensuring the right to legal defence, which is acknowledged in all legal ordinances throughout the European Union.

The object of registry information

The land registry's protective work must extend to both administrative procedures and jurisdictional procedures; and to both procedures initiated by public authorities and those lodged by private persons, when national legislation gives private persons that faculty.

1. Administrative proceedings:

(a) Initial phase: administrative proceedings to punish ecological transgressions must be the registered as soon as they are initiated or filed. Reporting that a procedure has been filed is probably one of the most effective precautionary measures the law can take: When everyone involved knows there is a proceeding underway to restore environmental legality, compliance with the decision at the close of the proceeding is ensured, it is more difficult to commit fresh transgressions and the owners of other nearby territories will be on the alert. All in all, reporting the procedure helps make the efficacy of the restorative measure that is eventually taken all the greater.

Reporting could be expanded to include not only the fact that a proceeding has been filed and concrete precautionary measures (e.g. temporary suspension of activities that may prove harmful to the environment) taken, but also the essential steps of the procedure. Making them a matter of public knowledge is considered useful.

(b) Final phase or decision: a final decision has been handed down on an administrative proceeding, finding that an environmental crime has been committed and punishing the guilty party. The land registry can do the vital job of making the public at large aware of that decision.

This information is independent of the information about the lodging of the proceeding, and it can be given even if the information on the lodging of the proceeding was not reported for any reason.

The detailed list of all the actions that enforcement of an administrative ecological decision can lead to goes beyond the scope of this paper, and it may vary for reasons of legislative advisability or special cases in each nation's laws. Therefore, just as an example, we shall examine some of the most important actions involved in enforcement.

A decision on an administrative proceeding can result in an obligation to restore the polluted situation to the way it was before the illegal activity was committed, or an obligation to pay damages when restoration is not possible, or an economic penalty. There is also the possibility of combining various of these measures. If the proceeding finds that there has in fact been no illegal activity, we will clean the land's record by cancelling all reporting of the already-registered filing of the proceeding.

Disclosure of the obligation to restore the ecological damage done:

The land registry will give information about the decision ending the administrative proceedings and imposing obligations of action on the environmental violator (or obligations of subsidiary performance by the administration at the violator's cost, if the person condemned to perform the obligations fails to do so voluntarily).

The registry will also report any prohibitions a decision calls for that imply abstention from or the obligation not to do certain activities that are considered noxious, or that restrict such activities to the limits of what legislation considers tolerable. This can happen in a multitude of fields, *inter alia*, abusive felling of forests, prohibited or restricted crops, use of fertilisers, sound pollution, light pollution, radioelectric pollution, dumping into aquifers, garbage and waste dumping, atmospheric pollution, etc.

Reporting of economic penalties
Here, the report/information from the land registry plays a double function: not only to enable the population in general to know, but also to serve as a legal guarantee of collection of the sums owed.

This heading includes penalties in the strict sense (fines given by the authorities in their policing capacity) and also indemnities the violator must pay subject to the broader 'the polluter pays' principle.

An important point to stress is that, in its function as report/guarantee, an administrative decision can affect not only the land where the ecological wrongdoing is located, but also any property belonging to the violator (the violator must secure compliance with any penalties or indemnity payments using any assets or rights of economic value he has inside the European Union).

Under some nations' legislation, this category of reportable penalties also includes the possibility of **penalty condemnation** or compulsory deprivation of the assets of an environmental violator who persists in non-compliance.

2. Action by injured private persons:

European national legislations' compliance with Principle 10 of the Rio Declaration on effective access by private persons to judicial and administrative environmental procedures is widespread.

Such access can be provided in various ways, and all of them can be the object of general information through land registries:

- Report: private persons can go to the competent public administration, report that illegal activity is taking place and ask it to act. The registry will report the report, as it were, just as it reports any administrative proceeding, and the registry's record need not state that the proceeding was triggered by a private report.

- Public action: recognised by many nations' laws as a prerogative of private associations or a minimum number of persons seeking to defend a general interest. Public action can also be reported by the registry when ordered by the competent judicial authority.

- Jurisdictional procedures by private initiative: in the sense intended here, this is the possibility of private persons' gaining access to the courts to protect their rights against some public or private action that goes against their ecological rights.

In response to an illicit action by another private person, the injured parties may lodge any and all legal action aimed at restoring the violated environmental situation or winning indemnification for damages. Registry reporting in these cases must be extended, similarly to what we have seen for administrative proceedings, to cover both the filing of the judicial claim and the reporting of the sentence, or the establishment of such guarantees as the court deems necessary for compliance or the economic indemnity, if any.

Private citizens can also oppose public administration actions that violate their environmental protection rights. National legislations acknowledge that the persons affected have the capacity to file administrative and jurisdictional appeals against authorisations and licences that impair their ecological rights. Such appeals and claims can also be reported in land registries for general knowledge.

Conclusions

One of the fundamental aspects of land registries' connection with environmental protection and defence of compliance with ecology legislation is the reporting of measures to restore an upset environment and penalise those guilty of upsetting it.

The reporting and information land registries give can encompass all the aspects involved in the restoration of the land-related environmental balance in one or more Member States. We have seen that the vast majority of ecological imbalances are related with or can be located in land.

The information land registries provide is effective in at least two ways: when the filing of an administrative proceeding, or a decision on an administrative proceeding, or the lodging of a claim by a private person is reported by the registry, everyone and anyone can find out about it and nobody can claim ignorance. The decision thus has much greater possibilities of actually being complied with.

In the second way, registry reporting serves as a guarantee of voluntary or mandatory compliance with judicial or administrative decisions imposing economic sanctions or awarding payment for damages. Effective management of ecology penalty policy must not pass up any opportunities afforded by a land-based institution such as the land registry.

4. The registry office and environmental information

4.1. The land registry as an environmental information office

Antonio Giner, Land registrar

The land registry, as an institution created by States to guarantee legal certainty in immovable property transfers, is organised as a network of offices. Land registry offices have essentially the following characteristics:

- They are public offices in both senses of the word: they depend upon the public administration, and they are open to the public.
- They are organised on a territorial basis, and they are strongly connected to the land in their territory.
- They have a direct connection with the different public administrations.
- They have a certain inter-European connection.
- They are equipped with advanced technological resources.
- They are handily nearby for citizens.
- They are manned by citizens who hold thorough legal qualifications.

These features have made it easy for public administrations to use land registry offices for other functions in addition to their primary function: tax functions, consumer protection and information, urban development-related functions, penal functions, etc.

The proposal we defend is to use registries as environmental information offices. We will take full advantage of already existing offices to accomplish one of the basic principles of all environmental policy: the right to access to information. The idea would not be just to lay a connection between the land registry and environmental activities involving the physical or legal modification of immovable property, but to provide information in the broad sense. European registries can furnish the window where public authorities with environmental responsibilities can put their policies on display. Some possible embodiments of this new facet are suggested herein, but we would like to stress how open the new possibility is: by making registries environmental offices, the public authorities could use them in everything they see fit to better divulge environmental information.

4.1.1. Introduction

The land registry is an institution whose origin can be traced fundamentally to the need to provide the real estate market with an instrument of legal certainty. With antecedents dating back to ancient Egypt and classic Greece, the modern institution of the registry developed during the 19th century as real estate transactions gradually grew in importance. The State was obliged to take a hand in regulating the market by devising a safety mechanism to ensure property buyers that the persons transferring ownership were the true owners and that there were no more burdens or encumbrances on the property than the potential buyers are aware of. To accomplish that, European laws created registries where the title to immovable property and all the burdens and encumbrances on immovable property are recorded.

In order to organise these registries, States then proceeded to create public offices where the public function of registration was to take place. So, when we try to define the land registry, we can emphasise its essential or institutional aspect or its adjective aspect as a public office. Thus, the land registry is the **institution** created to provide legal certainty for immovable property trading, while the **registry office** is the public office where the **functions of the institution of the registry take place.**

Let us examine this 'registry office' first of all. Then, we shall see how one of the basic principles of all environmental action is to provide information about the condition of the environment. Lastly, we shall see how it is possible to weave the registry office into the environmental information network.

4.1.2. The registry office

Let us try and analyse the registry office and decide if it is fit for other purposes, especially being made into a genuine environmental information office. To do so, first we must examine the characteristics of registry offices, and then we shall examine other functions

land registries perform in addition to registration-related functions.

The registry office has the following characteristics, which describe it:

(a) It is a public office
The registry office is truthfully a public office in both senses of the word: it is an office that forms part of the public administration, and it is an office open to the public to inform citizens about its contents.

It is the State which creates the registry for the purpose we have already mentioned: real estate market certainty. Registry offices are not created or organised by real estate market operators, but by the State, who plays the part of regulator to provide citizens with the information they need so that their transactions will take place under fair and equal conditions. The State creates the registry office, it regulates the composition of the registry office, it assigns the registry office its contents and functions and it regulates the procedure of registration and information. The registry office is therefore an office of the public administration. The functions it performs and the method by which it accomplishes its purposes are set by the State by law. It is not a private entity; it is the State itself, organising itself in pursuit of an end characteristic of itself.

Furthermore, the registry office is an office open to citizens, who can go there to check up on the legal situation of immovable property and register their rights to immovable property. European citizens know about registries, and they go to registry offices when they need legal information on real estate. Therefore, registry offices are offices whose structure is prepared to receive the citizen and give him information, as that is their main *raison d'être*.

(b) It is an office organised on a territorial basis
When we say that the registry office is an office organised on a territorial basis, we mean that in several ways:

First, the object of the land registry is territory, i.e. land or immovable property. The registry office is created and prepared to provide information about land. This information is primarily legal in nature, but later we shall see how this territorial connection enables the land registry to extend its informative powers to other matters regarding land and the action of public administrations (urban development, farming, taxes, etc.).

Second, States have organised the institution of the registry by creating a network of offices, each having a specific slice of territory under its mandate. Each public office informs about the legal situation of the immovable property located within its territorial bounds. Actually, all European territory is divided up into registry districts of one size or another, and in each district there sits a registry office holding exclusive competence over that piece of territory. The registry is an essentially territory-based legal institution on property. Legal information on immovable property can only be provided by the competent registry office. This essential characteristic of the registry's set-up involves the creation of a network of offices tightly bound to the territory over which they stand guard.

Moreover, and as a result of all the foregoing, the registry office belongs to a decentralised system. It is not a single office, but a network of offices that are nevertheless inter-connected by telematic networks and an agile communications system, and they have a central organisation that provides them all with the same standard of human and physical resources and technical advisory services.

(c) It is an office connected with the different public administrations
Registry offices may depend organically on States or decentralised portions of States, such as regions, federated states or cantons, depending on the system each Member State has for distributing its powers. Nevertheless, this assignment of powers does not prevent registry offices from having an agile, fluid connection with other public administrations that act in the real estate market in a regulatory or operational capacity. So, on the one hand, registries apply rules given out by different competent public administrations. On the other hand, registries register property acquired or transferred by different administrations or public bodies.

(d) They are offices with inter-European connections
For years, the registry offices of all the countries of the European Union have been involved with one another in an ongoing relationship. Through international congresses held annually by Cinder (the

International Centre of Registration Law), European registrars meet with registrars from other countries to study and discuss applicable legislation, propose legislative improvements to help them achieve their purposes and share the experience they have had in their own countries.

(e) They are offices well equipped with technical resources
Registrars have to handle legal information on immovable property, so they have been required to equip their offices with the most modern technologies so as to do their job with dispatch and security. Major internal networks have been developed to enable information to be facilitated to citizens without their having to go in person to the registry office. For that reason we can say that in the registry, as in many other fields, there are also what are called virtual offices, which multiply the amount and speed of the data provided. The same technical resources are likewise used to forward information of interest to other public administrations.

(f) They are offices close to the citizen
Registry offices are places that citizens find readily accessible because of their territory-based structure discussed above (each citizen has one nearby) and their public nature. Citizens know about their registry offices and go to them whenever they engage in real estate dealings.

(g) They are offices manned by highly-qualified officials
States head registry offices with officials who are well-versed in legal and fiscal matters and must pass demanding admission tests that require demanding preparation to ensure that they do their job right.

If we examine the functions of the land registry and the characteristics of the registry office, we might wonder whether the office could possibly house any functions other than land registration.

The answer is yes. States created and organised registry offices as mechanisms or instruments for performing the function of making the real estate market certain, i.e., property registration. Nevertheless, registry offices' many useful traits seen above have made it easy for States to use registry offices for other functions as well. And not only are they used by the administration they are organically dependent upon; they are even used by other administrations, thanks to their special characteristics, the chief one being their territorial nature. For example, registry offices can stretch far beyond their original intention to perform some of the following functions.

Fiscal functions: Registry offices have been used by States as a mechanism for guaranteeing payment of different real estate taxes. Under that arrangement, either the taxes on the real estate transactions brought in for registration get paid (because payment is a requirement that must be met before the transaction can enjoy the registry's protection), or else taxes are paid directly at the registry office. Likewise, there are mechanisms whereby the registry cooperates with various administrations interested in collecting property taxes by sending in information periodically. In addition, since the officials in charge of registry offices have legal training, they are frequently assigned the task of managing and collecting taxes such as transfer tax and inheritance tax. Furthermore, the tax administration frequently uses registry offices as a source for tax-related information.

Consumer protection functions: Real estate, especially housing, is one of the areas where public consumer protection action has the greatest impact. Registry offices are used as genuine consumer information offices. In addition, registry offices inform consumers about tenure security mechanisms and cooperate with consumer organisations and associations and public bodies in charge of consumer defence, to study mechanisms and proposed measures for making the real estate market more certain.

Urban development functions: Urban development involves a series of operations that are all reflected in the land registry: property is physically altered, titles change hands, assets are encumbered. If there is to be the right kind of connection between these things and the registry, there has to be constant contact between urban development authorities and registrars. Under urban development legislation the land registry is also entrusted with the function of reporting on the urban development situation of immovable properties in its territory. Likewise, registries cooperate with the administration in preventive and punitive work in the area of urban development discipline. For instance, registrars must demand that certain development requirements be met before

certain juristic acts (such as declaration of construction, land transformation and lot division) can be registered. Likewise, registrars inform the administration of certain operations that may violate urban development rules.

Penal functions: Registry information has been used to avoid and penalise activities such as money laundering, tax evasion, frauds, etc.

4.1.3. The need to extend environmental information

One of the basic principles governing environmental policy is the right to access to environmental information.

In fact, Principle 10 of the Rio de Janeiro Declaration on environment and development of 14 June 1992 affirmed that 'each individual shall have appropriate access to information concerning the environment that is held by public authorities, including information on hazardous materials and activities in their communities, and the opportunity to participate in decision-making processes. States shall facilitate and encourage public awareness and participation by making information widely available'.

Before that, Council Directive 90/313/EEC of 7 June 1990 on the freedom of access to information on the environment laid upon Member States the obligation to make the necessary provisions for acknowledging the right of any person to access to the information on the environment held by public authorities.

In Spain, it is Act 38/1995 of 12 December on the right to access to information on the environment (revised by Act 55/1999 of 29 December) which implements Directive 90/313/EEC. Article 1, paragraph 1 of the act states, 'All natural or legal persons that are nationals of one of the States comprising the European economic space or having his domicile in one of such States are entitled to access to the environmental information held by the competent public administrations, without the obligation to prove a given interest and always with the guarantee that his identity shall be confidential'.

Ensuring this right is one of the main goals of the European Environment Agency, as declared in Article 1 of Council Regulation (EC) No 1210/90 of 7 May establishing the European Environment Agency and the European Environment information and observation network. The regulation states that the European Environment Agency is created in response to the need to provide the Community and its Member States with objective, reliable, comparable information at the European level enabling them to take the requisite measures, *inter alia*, to guarantee that the public is properly informed about the state of the environment.

Moreover, most of the Agency's functions listed in Article 2 of the regulation have to do with this purpose. The Agency is especially assigned 'to ensure the broad dissemination of reliable, comparable information on the state of the environment to the general public and, to this end, to promote the use of new telematics technology for this purpose'.

Therefore, access to information is one of the fundamental principles in environmental law, a key aspect in its implementation. In fact, some scholars stress the importance of environmental information as an instrument for heightening citizens' awareness of their own environmental responsibilities, which will surely contribute, these authors reason, to environmental protection (the ultimate purpose of environmental legislation, Constitution, Article 45).

So, environmental information needs to be made readily available to citizens by means of mechanisms that make it easier to obtain and understand environmental information. Indeed, there is a well-known argument that says it is no good to regulate a right if in practice the right is impossible to exercise or if, in order to exercise it, one must tread a complicated path or use methods that are too costly for normal citizens. Such difficulties make the right (in our case, access to information) purely theoretical.

Ramón Martín Mateo has written on the subject of the right to environmental information, 'To have information available is one thing; it is quite another for that information to be accessible, be it to private persons or the administration. The difficulties from the citizen's standpoint can be traced to such common circumstances as distance from the responsible public centres, ignorance about the scope of the different administrative levels and the very lack of knowledge about environmentally relevant activities being planned or underway, which are not usually trumpeted about [...] But

even if the public administrations hold the requested data and wish to convey it, they will not always be in a physical position to do so, especially in large complexes where it is difficult to physically locate files and documents and identify which specific bureaus are handling the affair. It will be necessary to create specialised liaison and tracking offices to do the tasks that many public authorities are trying unsuccessfully to tackle. And in addition, some legislations seem to assume an apathetic administration attitude; the administration is not obliged to locate information if the applicant cannot identify and describe what he wants to know with a certain amount of precision, and the applicant is (understandably) not qualified to run a computer search on the registries and archives himself'.

4.1.4. Use of the registry office as an environmental information office

So far, we have described the registry office and reached the conclusion that it is well able to accomplish other activities besides its principal or original job. And we have underscored the need to expand environmental information as the main goal for public action on the issue: to enable the public to have good information available about the state of the environment.

All that remains for us to do is to demonstrate that the registry office can help in this task of divulging environmental information among citizens by becoming a genuine environmental information office. Furthermore, land registries may be drawn into what is called the European Environment information and observation network, since they are a national institution that meets all the characteristics listed in Article 4 of Regulation (EC) No 1210/90. In addition, the registry office can be used by the authorities to gather useful data for evaluating the territory's environmental state and thus planning the proper environmental protection measures.

As we have seen, the registry office has one primary or original function: to house the land registry. However, as we have also seen, it has all the characteristics it needs to perform other functions of interest to the authorities. Among these functions, we propose to include that of providing citizens with a nearby venue where they can gather information about the situation of the environment, both at the general scale and especially with respect to the territory under the registry office's keeping. The registry office could also be used by citizens to send in information of interest to the competent administration, both by drawing on the immense body of information on file in the registry and by using the registry office directly as a territorial bureau of the different competent administrations (local governments, regions, nations, the European Union).

Citizen information is one of the backbones of environmental policy, as we have seen above, and the authorities are using every advisable measure to achieve that goal. However, in order for this information to be effective, it must satisfy a series of requirements:

- We must ensure that information is disseminated thoroughly enough. There is no point in collecting long reports if those reports are going to be inaccessible to citizens because of the kind of language they use or the difficulty of physical access. What is needed is a guaranteed network of thorough dissemination to give all European citizens easy access to information.
- There must be some guarantee that the dissemination of information will ensure the necessary equality of opportunities. Never must certain citizens get easier access to information than others, for technical or any other reasons.
- The information must be provided responsibly and with sufficient knowledge. Mere access to a database will not suffice. Criteria must be provided for interpreting the information and means must be provided for evaluating it.
- Major technical resources and materials are required so the information can be computer processed and quickly disseminated.
- The public authorities must mediate and supervise to guarantee equal opportunities, to ensure that the information is accurate and to safeguard it from any manipulation.

The registry office meets those requirements:

- It is a public office to which citizens have free and equal access.
- It belongs to the administration, which can supervise the information to ensure its sources and accuracy.
- It is structured on a territorial basis, and citizens are already accustomed to turn to it for real estate information. It would seem

quite natural if the information in the registry were to extend to environmental aspects of the land where registered property is located, since such aspects must be increasingly taken into account in appraising the worth and suitability of real estate.

- Its territory-based structure guarantees its nearness to the citizen. This question is especially important. New technologies can keep people from having to travel and enable the dissemination of information quite easily. However, if we limit the information available to what is conveyed online, we condemn to illiteracy all the layers of society where there is no access to information technology or, even more importantly, no knowledge of how to use information technology. We must continue facilitating information at handy, nearby institutions that can advise the citizen and allow the greatest possible dissemination of information. That will also ensure full coverage of the territory as called for in Article 4 of Council Regulation (EC) No 1210/90 cited above for membership in the European Environment information and observation network.
- Registry offices already have the necessary technical resources to accommodate environmental information and the right means for facilitating it to citizens. They also have highly trained human resources to facilitate the information and interpret it correctly.
- Their direct and indirect dependence on various administrations makes it easier for registry offices to act in matters like this, where competence is split up among different administrations (local governments, regions, nations, European Union). Registries can receive information from them all for dissemination and send information to them all for policy work.
- The land registry is an institution that is going to be increasingly linked to the environment, both with regard to direct policy (physical and legal changes to properties) and with regard to prevention and punishment. All these particulars are studied in other sections of this paper. Therefore, environmental cooperation beyond the strict bounds of registration is not going to be foreign to the operation of registries.
- There are registries in every State of the European Union, so environmental policy could be spread throughout the entire Union, without prejudice of special national laws on the organisation and operation of registry offices.

Therefore, we can conclude that the registry office can be used as a means for obtaining and disseminating environmental information. The concrete cases in which it could be used are absolutely unlimited. In reality, it could be used for anything the environmental authorities see fit. As an example, we submit the following open list:

(a) One embodiment of the registry office as an environmental information office would be very simple: to include the addresses of environmental institutions on the registries' web pages. This is very simple but also quite effective. Most Internet users get to web pages through links from other web pages. Land registry pages have a high number of hits, and their visitors use them basically to submit electronic queries for registry information. No doubt those citizens would be just as interested in checking the environmental rules affecting their property or the territory where their property is located, future plans and policies, technical reports on present or future actions, and so on. They could also get to environmental institutions' web pages without having to remember the address, just by clicking on the link to the desired institution.

(b) Land registries can be used to ensure that necessary information is made public before and after the environmental impact assessments and studies regulated by Directive 85/337/EEC of 27 June with the amendments in Directive 97/11/EC. Environmental impact assessments or studies are required before certain activities deeply involved with land (e.g. industrial activities, farming activities, public works) can be authorised. It is this set of studies and technical systems that enables us to estimate the effects a given project, set of works or activity would have on the environment. These studies must endure a public information stage (in Spain, under Royal Legislative Decree 1302/1986 of 28 June, amended by Royal Decree Law 9/2000 of 6 October transposing the aforesaid directives and Royal Decree 1131/1988 of 30 September implementing the Royal Legislative Decree and the Royal Decree Law). The land registry, with its special characteristics (especially its special territory-based structure), can be a highly useful tool for making sure that information truly reaches citizens, so they can submit any

arguments they see fit. Likewise, if environmental studies are posted in registry offices, citizens could check up on compliance with studies, which would increase the efficacy of the administration's policing work. All that could be achieved, while the confidential aspects of information referred to in Article 8 of the aforesaid Spanish decree law could still be protected.

(c) The registry office can do double duty helping the authorities to disseminate its papers and reports among the citizenry. Public papers can often only be accessed through specialised organisations, so the public at large remains ignorant of them. Registry offices could enable public papers to reach a wider audience by announcing them in catalogues. Catalogues could be ordered through and picked up at registry offices, which could work as order and sale or delivery points. The registry office could likewise be used to announce the existence of such papers.

(d) The registry office can be used as the place where citizens file all their applications to environmental authorities about specific actions, subsidies, accreditation of requirements, etc. Registrars could send information on to the competent authority, who could answer right back through the registry office. Registries would be acting the part of local bureaus for public environmental institutions, taking advantage of the extensive system of registry offices and their handiness for citizens. Likewise, given the fact that there are various levels of institutions with competence in the matter (municipal governments, regions, States, the European Union), the registry office could work with them all. Then, citizens would know just where to go no matter what authority they wish to address.

(e) The registry office could become a genuine environmental consultancy, where citizens could go for any questions, applications, demands, etc. Likewise, they could receive information about applicable rules, regulated procedures, competent institutions, etc.

(f) In registry offices, citizens could check environmental information on the territory within the office's bounds as reflected in image databases. Registries and environmental authorities must use the same databases in that case, and the citizen must be allowed to examine them to see whether a certain property is affected by certain limitations or subject to certain obligations. Much information about soil condition, infrastructure and so on could be provided at the registry, whether by allowing citizens direct access to graphic bases or by giving out hard copies.

(g) Registrars promote the publication of numerous technical and scholarly documents through their policy of publishing all work of importance for their function. Obviously, the environmental question is of importance for their function, and therefore registrars ought to promote the publication of work on this subject and divulge it in registry offices.

(h) Registries have extremely extensive databases about the immovable property located in their territory. They can be most useful to the authorities for environmental situation assessment and task planning. Of course, legal information (on owners, burdens, etc.) cannot be transferred en masse. The information that is pertinent from the environmental standpoint, however, is a different kind of information: the extent of urban expansion or development, outlooks for expansion, farm and agricultural censuses, forestry activity, expansion of infrastructures, influence of public action on the said activities, public properties, etc. There is no end to the list of possibilities for the information available. In reality, the registry's is the biggest land database there is.

To wind up, for the registry office to be used correctly as an environmental information office, there are some requirements that must be met:

- Cooperation protocols with the different competent administrations must be signed.
- The data-processing equipment available and access to the respective databases must be coordinated.
- The people in charge of running these activities must be trained.
- Registries must be given access to the authorities' image databases.
- All these actions need to be tracked and checked daily to ensure their efficacy.
- The necessary resources must be provided for the registry office to operate as an environmental information office. Those resources can be direct (subsidies or direct government investment) or indirect (funding of expenses with resources obtained from other registry functions, in

whichcase there must be some guarantee that those resources will be sufficient).

4.2. The environmental information associated with image databases of properties in the land registry

Jorge Requejo Liberal, Land registrar

There are three ways of looking at the possibility of associating environmental information with the graphic representation of property registered in land registries:

- **Administration guarantee:** With land registry information in hand, the administration can discover what properties lie within any space subject to environmental action (protected spaces, polluted areas, noise corridors, etc.) and who those properties' owners are. Thus informed, the administration can pack real efficacy into its measures or specific set of rules for each environmental action, no matter who the owner is at the time. In addition, the administration can use the land registry's property-associated information to address the owner directly, and that facilitates the application of any penalties on landowners who commit environmental violations (unlawful planting, indiscriminate felling of trees, illegal urban development or activities prohibited by legislation).

- **Citizen protection:** Through this instrument of disclosure, citizens can see what environmental limitations are on the land they own or are considering buying, and what, in short, are the faculties involved in the proprietary rights to a given piece of property.

- **Full information:** The territory-based structure of the land registry in Spain and its method of organisation by lots enables it to cover the entire country in full and tag each piece of property with any information of importance to the property's legal profile. Thus, in a single blow, the registry reveals all the interrelations between pieces of property due to any action involving land, whether the action has to do with urban development, farming or the environment.

By identifying registered properties as closely as possible with the actual properties existing in reality outside the registry's walls (especially their true environmental condition), we can offer such reliable reports of their state that in practice registry reporting will become a vital instrument for guaranteeing all legal situations of immovable property, even those that affect factual data.

Graphic representations of property and updates thereof provide knowledge of the evolution of the land, its changes and the environmental impact it may have experienced from any real estate activity of environmental relevance (lot division, new works, housing developments, etc.).

Land registries have incorporated the graphic representation of property based on support images (digital orthophotos and 1:25 000 IGN cartography) as an approach to locating property. The target properties are depicted in vector format organised in different layers, and the layers are grouped by subjects, so any changes in the physical configuration can be incorporated as they occur. These tools are always used as a complement of the alphanumeric data on file in the land registries' books. Altogether, the procedure enables us to integrate the legal information with the graphic information on the property in question.

All graphic information held in land registries is georeferenced using direct location coordinates. Other georeferenced data can also be incorporated, and the different bits of information can be associated with one another. That is, after all, the end goal being sought. As many layers of information as desired can be incorporated. There is no limit.

The accuracy scale we work with in the graphic identification of registered property is as follows:

(a) In orthophotos, the resolution is one pixel:50 cm.

(b) Urban lot cartography is at a scale of **1:1 000**.

(c) Rural lot cartography is at a scale of **1:5 000**.

So, the closer the associated environmental graphic information data are to these parameters, the more precise is the information we can obtain.

4.2.1. Data-processing application

The data-processing application land registries use for handling graphic data (DinaMap) was developed specifically for processing these kinds of data (image bases of properties). It is an easy-to-use tool that is simple to adapt. It uses data-handling commands under a generalised format, with icons representing each of its functions.

DinaMap is adapted to the user's needs, because it was designed exclusively for the use to which it is put in land registries, the specific function of graphic identification of registered properties; and because it is so simple, no special user training is required.

The minimum hardware necessary to run it is practically elementary, and it does not require any special components apart from those with which all land registry offices are equipped for handling alphanumeric databases of registered property titles and burdens.

All the data the application handles (graphic and alphanumeric) can be printed out using any conventional printer, although the quality of the result, especially the graphics, will depend largely on whether the printer has black and white, colour or high-resolution capabilities.

Any graphic information provided in standard format (DXF) can be entered. The information is perfectly compatible with the information generated by the programme the Professional Association of Registrars uses, yet it can still be used with other types of databases.

Functions

As we move around the screen, we see the picture of the portion of territory we want information on. We can orient ourselves by looking for the usual landmarks such as highways, roads, rivers and the names of the places we are seeing on the screen. Best of all, we can see the real orthophoto image, which we examine to zero in on the site at issue in our query, especially when we are looking for rural property. When searching for urban property, the most logical, simplest course of action is to use the property's street name and number, as if we were looking up an address on a street map.

Once we have found the target spot, we call up the graphic of the area's lot configuration (cadastral cartography). That picture is superimposed on the pictures we have used to get a fix on the specific area where the lot we are looking for is supposed to be. Having fixed that image and matched the graphic data on the lot with the data in the land registry, we can be sure we have found the graphic identification of the registered property.

We can do the same operation in reverse, starting with the descriptive data in the land registry's database and asking the application to give us the graphic representations of all the properties that match that data.

4.2.2. Fundamental phases of incorporation

1. Install the image base system at the land registry (Geo-base):
— digital orthophoto of the mortgage district (available);
— cadastral lot divisions (available).

2. Obtain associated municipal graphic information:
— urban planning information.

3. Obtain georeferenced environmental cartography of the areas (protected spaces, coasts, polluted areas, etc.) (to be provided by the Thematic Centre, European Environment Agency or Generalitat de Catalunya).

We have enclosed some examples of what the picture looks like when we call up a montage of privately-owned property and the delimitation of the space to be supervised because of its environmental importance.

In the examples — which are, please remember, just examples — we have taken a gas pipeline, which is physically invisible because it runs underground but nevertheless does have major consequences for the land it runs through and therefore is considered potentially significant for other invisible applications (bird protection areas, noise corridors, protected natural spaces, etc.).

The other example we propose is the definition of a livestock thoroughfare and all the intrusions into it. This picture could help in taking the proper decisions and, if need be, recovering the area of public domain and public use that has been invaded.

5. Suggestions for possible applications

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Mataró, Barcelona

Our study ought not to be limited to underlining the theoretical relationship between land registry and environment. Since we have demonstrated that the registry is useful as an instrument for the legal defence of the environment, that instrument must be put into practice immediately wherever no amendments of laws are required, until the necessary amendments can be made.

Those areas are the following:

(a) The European Agency
Environmental information from the European Agency could be offered online experimentally, after solving the issues of scale resolution and with the cooperation of the Department of Environment of the Generalitat (Government of the Autonomous Community of Catalonia) in the six registry offices that together service the district of Maresme, a territory of 400 km^2 in Catalonia, north of Barcelona. This district was chosen because:

— It is a relatively limited area but it contains a wide variety of types of land, including urban land, residential land, commercial land, farms, forests, natural parks, coasts and beaches.
— The registry offices are equipped with the technology to perform the function and have experience handling image bases.
— The registrars in charge of the offices belong to experts' corner task forces.
— The Catalonia Cartographic Institute has the proper maps.
— The European Topic Centre on Terrestrial Environment is located at the Autonomous University of Barcelona.

(b) The Generalitat de Catalunya
The powers over the environment that the Spanish Constitution and the Statute of Autonomy give the Catalan Autonomous Community allow it to sign a cooperation agreement (text enclosed) between the Catalan Environment Department and the Spanish Professional Association of Land Registrars so that the 140 land and mercantile registries located in Catalonia can give legal coverage to environmental decisions made within the two institutions' respective spheres of power.

(c) Registration institutions of the EU and adjoining countries
The means necessary for putting a European environmental information network into practice as an annex to the European registry information network.

6. Environmental law and the mercantile registry

Manuel Ballesteros and José Antonio Rodríguez Del Valle,
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Disuse or desuetude is commonly admitted to be the greatest danger threatening environmental laws. For this reason, one of the legal techniques that needs reinforcing to make environmental laws effective is citizen participation, so that it is the citizens themselves who become the guarantors of compliance by the official levels involved, companies, public and private entities, and so on.

Of course, citizens can hardly participate without adequate information. The public has to be knowledgeable about the requirements the authorities have set for engaging in certain pollution-producing activities, the limitations it has set on given protected territories and so on — in short, knowledgeable about rules bearing on the environment. That makes reporting an instrument, a legal technique, that environmental law must use with zest to ensure its own efficacy.

Land registries and mercantile registries, the reporting institutions par excellence, can render great service in this task. Even more so if we take into account factors such as: (a) their long experience in the field of disclosing rights and legal situations, (b) the fact that registries use the latest in information technology, and (c) in addition land and mercantile registries form a network blanketing all of Europe and their individual offices are handily located for citizens.

Undoubtedly, the cooperation the mercantile registry, the chattel goods registry and the land registry can lend towards achieving more depth of reporting and efficacy in legal situations stemming from environmental rules differs from registry to registry, because, as we know, the three registry types differ from one another.

For instance, the land registry is a registry whose basic working unit is the piece of property (a portion of land) for which rights or contracts (depending on the registration system) concerning that property are registered. The mercantile registry, on the other hand, is a registry of persons, where the legal situations involving merchants are registered, whether the merchants are natural persons, legal persons (companies) or any other kind of entity (such as pension or investment funds). And the chattel goods registry in the Spanish legislative system is a registry of certain titles of ownership of chattel goods (including ownership of goods ranging from ships to industrial machinery, plus rights to stocks, crops or livestock as security), where general contract conditions are also registered in a section of their own.

Let us focus now just on what utilities the mercantile registry can offer environmental law, ignoring for the moment those that the other registries (land and chattel goods) have to give. We can say, without prejudice of other utilities, that the mercantile registry is a good instrument for reporting rules, limitations, administrative and judicial action and other types of action affecting companies, because it records all environmental situations or actions that it is believed ought to be given proper disclosure in the legal records of registered natural persons, legal persons and entities.

To that, we might add that the mercantile registry is the most effective instrument for reporting great masses of information, because it is the mercantile registry file that holds the kind of information third parties inquire after, the information germane to legal dealings between a given company and third persons. And the mercantile registry file is where company accounting information is posted, kept and made public, since companies are obliged to post their annual accounts with the mercantile registry, at least in some European legal systems. The concentration of all that company information in a single file obviously creates favourable synergies and magnifies the effects of reporting. Those same synergies would also benefit any environmental law information reported by the mercantile registry.

The list of the environmental situations or actions involving commercial firms and other

entities registered in mercantile registries and advantageously disclosed by mercantile registries is certainly an open list. Perhaps these situations could be roughly classified into four groups:

(a) Administrative or judicial action. By this, we mean decisions taken by administration bodies with competence in environmental issues, such as decisions to grant authorisations or licences, take preventive measures or apply penalties. Also, judicial decisions the judicial authorities hand down on environmental matters where they have cognisance. All such decisions, both administrative and judicial, could in certain cases be advantageously reported through the mercantile registry.

(b) Eco-audits. It might also perhaps be expedient to use mercantile registries to report things having to do with the running of eco-audits, whether the point is to make public the membership of a given company in eco-auditing schemes, appoint an environmental auditor or post the auditor's report with the mercantile registry to make it public.

(c) Environmental issues incorporated in companies' annual accounts and reports.

(d) Registry reporting of emission right trading.

Next, we shall discuss each of these aspects separately.

(a) Administrative or judicial measures due to environmental action set down on the page (i.e. the legal record) of registered companies or entities in the mercantile registry

These administrative or judicial actions may be 'preventive' or 'negative', e.g. the issuing of warnings or preventive measures, the filing of penalising proceedings or the firm application of penalties; or they may be 'positive', e.g. the granting of environmental certificates or subsidies or public or private loans for certain environmental projects.

It is obvious almost to the point of needing comment that, in certain cases, it is advisable for such administrative and judicial measures to be 'reported' by the registry, because reporting makes the measures known to the general public, and the suppliers and potential customers of the company in question are members of that public. Registry reporting is a strong reinforcement and also amplifies the stringency of penalties, and therefore it can magnify, for example, the dissuasive effect of sanction rules. Similarly, through reporting, the registry boosts the effects of 'positive' actions such as the issuing of environmental certificates, which can help enhance the company's image.

So then, it is quite clearly good for legislation to provide for the possibility of giving certain administrative or judicial measures in matters of environmental law access to the mercantile registry as the best reporting system for them.

In any case, we feel that prudence should be our guide in deciding what measures would be better off with the 'complement' or 'reinforcement' of registry reporting and what measures can dispense with it. For some measures, such as penalties, registry reporting may make the punishment unnecessarily harsh, and in any case it is not a good idea to pump up the list of items mercantile registries report unless really necessary, because an excess of information could muddy the clarity of the information provided and therefore hamper the efficacy of the preventive legal certainty system that the mercantile registry ultimately seeks to provide.

(b) Eco-audits incorporated in the mercantile registry

Council Regulation (EC) No 1836/93 of 29 June 1993 enables companies in the industrial sector to voluntarily join a Community eco-management and audit scheme. The regulation was affected by Decision 97/264/EC of 16 April on the recognition of certification procedures and Decision 97/265/EC of 16 April on the recognition of the international standard ISO 14001.

Any company participating in the Community eco-management and audit scheme must adopt an environmental policy that defines the company's objectives and principles of action in environmental matters, run an environmental analysis of its sites, establish an eco-management system, make an environmental statement and run periodic eco-audits.

All these things must be checked by an accredited, independent environmental verifier. The EEC regulation states that each Member State must establish a system for accrediting these verifiers and send in a list of accredited verifiers to the Commission, which will, with all the lists in hand, publish a

full list in the *Official Journal of the European Communities*. This list has already been published.

The regulation also states that companies participating in the eco-audit system will be included in a registry that the competent organisations must keep for that purpose.

Since the European environmental audit system (ordinarily known as the EMAS, or eco-management and audit scheme) was started up in 1995, it has grown and sown hope. Year after year, the number of EMAS-certified companies has been growing exponentially. The same is happening, in greater numbers because of its wider sphere of influence, with the ISO system of environmental certification, whose validity in the European Union is admitted in Decision 265/97 of 16 April, cited above.

The proposal on the table is to incorporate eco-audit data in the mercantile registry, or rather the organisation in each Member State where the legal history of companies is registered, or at least to allow voluntary incorporation if business owners so desire.

Such incorporation would or could involve several steps: (i) The fact that a given company or business owner has voluntarily joined the eco-audit scheme will have to be reported at the registry. To do that, the company or business owner will have to file an application to register the information with the registry, accompanied by documentary proof (under European Union and national legislation) that it has in fact joined. (ii) The eco-auditor's appointment will have to be registered. The eco-auditor is the outside verifier chosen from the roster of officially-accredited eco-auditors to check the extent of the company's compliance with its environmental commitments. Naturally, the auditor's appointment cannot be registered until it has been confirmed that the auditor really is on the official roster of authorised auditors. (iii) Eco-audits will have to be posted periodically with the mercantile registry by the companies that have joined the eco-audit scheme and whose membership and eco-auditor's appointment have already been registered as indicated in steps (i) and (ii) above. This information would be posted simply for the purpose of making the audits' contents public; an eminently juridical organisation such as the mercantile registry has no business investigating the information, as it has no power to do so. And the same guidelines and criteria could be followed as are used for the annual posting of company accounts.

Certainly, at first glance, it may at appear that recording all these particulars in the mercantile registry is pointless. The decisions at issue will already have been reported in official journals that list, for instance, the companies belonging to eco-audit schemes, certified companies and authorised auditors. It is also true, however, that reporting these particulars in the mercantile registry does have incontrovertible advantages from the standpoint of making them public:

— Because the focal point for reporting companies' legal and accounting life is the mercantile registry, and therefore from the standpoint of greater reporting efficacy and citizen access to data, we would do well to strive to the utmost to centralise all the information on companies at a single point, so citizens do not have to make the rounds of different centres to obtain information that they might otherwise obtain from a single spot.

— Because some of the particulars involved, such as who the specific eco-auditor of a company is or what the eco-audits say, are not properly reported at present.

Incorporating these data in the mercantile registry as proposed herein would then report data that are not reported at present. In any case, it would go far to facilitate queries into and knowledge of the information at issue.

(c) Environmental questions acknowledged, quantified and reported in companies' annual accounts and annual reports

Another important issue in the matter of reporting environmental aspects at the mercantile registry (or whatever organisation in charge of reporting the legal life of companies in each State of the Union) is the incorporation of environmental criteria in companies' annual accounts. On this subject, the Commission has issued an important recommendation dated 30 May 2001, which 'recommends that the Member States:

1. Ensure that for accounting periods commencing within 12 months from the date of adoption of this recommendation and for all future accounting periods, companies covered by the fourth and seventh company law directives (Directives 78/660/EEC and 83/349/EEC respectively) apply the

provisions contained in the annex to this recommendation in the preparation of the annual and consolidated accounts and the annual report and consolidated annual report'.

So, the idea is for the company annual accounts and group consolidated accounts that are reported and made public pursuant to the provisions of directives four and seven in all States of the Union to include and give with all due transparency the quantification of and information on environmental expenses, environmental obligations and risks, and the related assets stemming from transactions and events that do or will probably affect the position and financial results of the company or group.

The recommendation clearly specifies the type of environmental information that is considered appropriate for inclusion in company and group accounts.

Furthermore, the recommendation is applicable not only to the companies to which directives four and seven refer, but also banks, financial institutions and insurance companies, since the financial implications of environmental questions are no different for these kinds of enterprises.

The Commission's recommendation, to whose text we shall adhere in these lines, specifies what is to be understood by 'environmental expenditure' and states what items are to be included and excluded from the concept. The recommendation moreover refers for these purposes to the definitions given out by Eurostat (the European Communities' statistics office) in the implementation documents of Council Regulation (EC) No 58/97 of 20 December 1996 concerning structural business statistics.

We need not go into a detailed review here of each item of environmental implications or environmental origin that must be included in the annual or consolidated accounts under the recommendation's criteria, because they are discussed in full in the recommendation.

The Commission's recommendation moreover specifies what accounting information of an environmental origin or implication must be included in company and consolidated annual reports, the balance sheet and the notes to the annual accounts. All those documents must be posted and disclosed in accordance with directives four and seven. Furthermore, the recommendation specifically provides that should the company have a separate environmental report containing detailed or additional environmental information of a quantitative or qualitative nature, the report posted with the annual accounts must refer explicitly to the said separate environmental report, and the company must also state whether the environmental report has been subjected to an outside verification procedure (the eco-audit we have spoken of before).

As for this aspect of verification and outside control, although the Commission's recommendation does not hold forth on the subject, it would seem wise to regulate expressly that the mandatory environmental report to be attached to the annual accounts in certain cases must assess the extent of compliance with environmental accounting rules and, where applicable, compliance with the enterprise or company's environmental programme. The environmental programme is one of the specifications that, under the Commission's recommendation, must be included in the report of which the annual and consolidated accounts form a part.

(d) Emission rights reported by the commercial registry

The commercialisation of greenhouse gas emission rights is one of the most important measures for tackling the change in our climate. Emission right trading is a major factor that can help reduce the costs involved in upholding the commitments in the Kyoto Protocol, pursuant to which the European Community promised to reduce its greenhouse gas emissions by 8 % from 1990 levels between 2008 and 2012.

Emission right trading consists in assigning companies quotas on their greenhouse gas emissions and allowing them to exchange their quotas with other companies.

The emission right trading mechanism enables some companies to go over their emissions quota if they can find another company that has emitted less gases than the maximum limit and is willing to hand over its quota surplus. The overall environmental result is the same as if both companies were using their own quotas, and both the buyer company and the seller company benefit from the flexibility the exchange system gives them, at no additional injury to the environment.

Obviously, the efficacy of a good environmental policy through the emission right trading system will depend heavily on the terms regulating the system and the strictness and control measures of the enforcement scheme. The goal of strict compliance and control is to boost confidence in the trading system and make it work efficiently to reach the desired environmental objectives.

In addition, in order for an emission right trading system to run smoothly, there has to be a good system of supervision, follow-ups and information. There must also be severe dissuasive penalties to convince companies that non-compliance is far more costly than compliance. These objectives — supervision, follow-ups and information — can be implemented through an effective instrument: a registry with legal effects to which emission rights and the transactions involving them have had access.

But, even more important than that function is the role a registry can play if it has legal effects. After all, emission rights are titles that will frequently be of great economic value, and at present there is no venue for disclosing who owns them. In other words, they are rights whose owner will remain secret to all the agents in the market unless a proper registry reporting system is arranged. A system to regulate how the trade in emission rights can gain access to a registry of substantive legal effects, built in the image of the experienced real estate registry systems and pursuant to the same principles.

Moreover, the project to put emission rights in circulation cannot conceivably have the slightest chance of success unless it is backed up and upheld by a good system of registry reporting that will make it possible to know for certain who the owner is and what, if any, burdens and limitations there are on the rights, through an easy querying procedure without the need for costly searches. There is no need to go on about the advantages a proper registration system has for achieving certainty in trade and reducing transaction costs, because that has been the subject of numerous expert studies.

The registry, where emission right trading is registered, would not have to be a specific registry whose sole object is emission rights. One of the already existing legal registries, working according to the thoroughly tested principles of registry reporting, could be used.

One registry suitable for these purposes is the one that already exists in Spanish law under the name of the chattel goods registry, created by the Sole Additional Provision of Royal Decree 1828/1999 of 3 December. The chattel goods registry has a section called the registrable chattel goods section, which would be an appropriate place for emission rights. This registry could trace conveyances of emission rights and offer a system for reporting all operations concerning emission rights, disseminated over a province-wide area (since chattel goods registries share their territory with provincial mercantile registries). The registry can also serve as a control tool to facilitate and help enforce a good system of penalties, so that non-compliance will never be cheaper than compliance.

Naturally, all aspects involving emission rights' access to the legal registry we are speaking of must be regulated in detail, especially their matriculation or first registration. The logical course of action would appear to be to use the administrative document conceding or defining the emission rights as the owner's property, as the title of matriculation. Any subsequent conveyances of or encumbrances on the rights could be registered on the basis of the public or private titles specified by regulations.

Moreover, it would be best if there were a central European registry of emission rights, where all the information on record in the different registry districts can be centralised. A central registry of this description would have the double job of reporting and giving transcripts of the data on record in provincial, regional or national registries, plus serving as a control system to prevent the registration of the same right in more than one of the lesser registries. In Spain, both the mercantile registry and the chattel goods registry have already proven by experience that a central mercantile registry (to supervise the names of companies) and a central chattel goods registry (which prevents double matriculation) work very satisfactorily. At any rate, central registries and the different provincial, regional and national registries must be highly computerised so there will be no delays in transferring information and dispatching titles. With a system of registries headed by a central registry at the top of the ladder, we can enjoy the advantages of centralised information and the advantages of keeping offices conveniently handy for citizens.

7. International aspects of environmental information

José Siméon, Land registrar, Calpe

7.1. Environmental information and its community perspective

The Treaty establishing the European Community proclaims that environmental protection demands form part of the definition and performance of Community policies and actions, quite notwithstanding the fact that they are also envisaged as a specific Community policy in Articles 174 et seq.

A major part of environmental policy has to deal with proper information on the subject in general and with regard to the physical basis to which the environment pertains. In this respect, Council Directive 90/313/EEC discusses the principle of freedom of access to environmental information, and if environmental information is to be full, it must clearly define the lots or properties to which it pertains.

The importance of information for fully achieving a single market has been emphasised repeatedly by Community authorities. Especially important because of its special economic significance is the information administrations can provide by promoting the creation of European information networks to allow equal possibilities of access to information at the Community level for private persons and companies the length and breadth of the Union, which would make for lower information costs. These perspectives are applicable to environmental information as a kind of information fully within the Community's sphere of competence.

At the same time, the environment is a constraint on proprietary rights. Although Community law does leave it to internal laws to regulate property (Treaty establishing the European Community, Article 295), it does so upon the common acknowledgement of a concept of property that emanates from the European Convention for the Protection of Human Rights and Fundamental Freedoms, the *acquis communautaire* and the constitutions of the Member States. That concept is based upon the acknowledgement of private property and the free transferability thereof, guarantee in case of condemnation and the possible existence of limitations on private property for reasons of public interest stemming from local laws or Community law. So, environmental protection can pertain to the concept of property, either through constraints that form a part of the basic laws governing urban or agricultural property, or through specific limitations. The limitations we are interested in, then, are those that touch upon the content of property, affecting its uses (e.g. zoning, protected areas), conferring certain rights (e.g. emission rights) or initiating or enforcing environmental correction measures.

Likewise, the land registry is a good instrument for cooperating with the Community or national administrations to ensure compliance with environmental rules, as in cases where environmental impact assessments must be accredited for registrable acts.

So then, the environment-linked limitations on property ownership to which we refer will normally have to do with property in the broad sense (lots, rivers, wetlands, etc.), but they will define rights and obligations that will delimit the contents of property ownership in each case.

As we have said, the concept of property common in EU countries acknowledges the existence of limitations for reasons of public interest. That has been so ever since the formation of the modern concept of property at the beginning of the last century, even despite civil codes and their absolute pronouncements on property. Such limitations have been recognised from the beginning and have become so much more complicated during the subsequent evolution of the right that they can be said no longer to limit, but to delimit, to form part of the very notion of property as a means of achieving certain ends that transcend the property owner. In the case of the environment, those ends are the preservation of the environment for the future and the achievement of sustainable development.

Environmental information thus pertains to properties and delimits rights as a consequence of the exercise of Community policies.

The land registry is the institution in charge of reporting the extent of and limits on proprietary rights; it is an institution that, although under different organisational guises and with different legal effects, strives to ensure to third parties the identity of the titled owner of immovable property and the extent of his title, thus saving information costs and facilitating the circulation of immovable property and credit. That is the way the registry is set up in every country of the European Union.

In comparative European law, we can see that certain internal legislations are taking their first steps towards the idea of reporting environmental information through the land registry, either directly or through reference to other databases.

Furthermore, since environmental information is an issue encompassed by Community action, it should aspire to access at the Community-wide level.

The agreement between the Professional Association of Registrars of Spain and the European Environment Agency therefore aspires to craft a European network of environmental information in consonance with Council Directive 90/313/EEC referring to property and its owners, and therefore a network linked to the information provided by land registries at the European level, without affecting the declaration in Article 295 of the Treaty establishing the European Community.

7.2. International aspects of the initiative

In the aforesaid context, the Professional Association of Registrars has informed various institutions and the persons responsible for the institution of the registry at the European Union level, with whom it has a particular relationship, about the initiative of the experts' corner project with the European Environment Agency and has asked for their comments on the subject and promised to send them the final text on the outlooks for the possible creation of a European environmental information network.

This is also in line with the findings of the recent registrars' congress, which discussed starting up a European network of registry information on properties.

Notification of this initiative has gone out to:

— the Cadastre, Registration and Public Property Administration of the Belgian Ministry of Finance;
— the Office of the Chairman of the Board of Directors of the Association of Registrars of Portugal;
— the Judge presiding over the Registry Court of Copenhagen, Denmark;
— the Munich Land Registry in Germany;
— the chief registrars in Apeldoorn, the Netherlands;
— the Chief Land Registrar for England and Wales;
— the Director-General of the Registry in Luxembourg;
— the Director-General of the Association of Registrars of France;
— the land registry in Dublin, Ireland;
— the registers of Scotland;
— the President of the Non-salaried Mortgage Union of Greece;
— the Cadastre and Registry of Lithuania;
— Sweden's national land survey.

Several of these bodies have sent in their comments

Belgium's Cadastre, Registration and Public Property Administration has pointed out the need to relate the aforesaid databases with the public law limitations that are within regional administrations' sphere of competence and the limitations that refer exclusively to the private-law aspect (which is within the individual State's sphere of competence). It stressed the need to strengthen registry information, on the assumption that reliable physical bases exist.

The Danish registry reported that Danish legislation calls for the registration of urban development plans, agricultural policy constraints and other matters with environmental connotations such as matters involving polluted land, conservation obligations, prohibited uses and corrective measures. The land registry for England and Wales referred to the initiative underway to create a national information service containing all the land data in the administration's databases. The initiative is led by the land registry; the land registry is responsible for legal information referring to

land and ought to be able to handle the giving of environmental information in future. The land registry of Scotland reports the same.

The Dutch land registry explained that environmental information is disclosed through a code, although to get more details one must inquire at the specific registry involved. The answer from the Cadastre and Registry of Lithuania informed us that Lithuanian legislation already calls for registries to report situations that directly impinge upon the environment, such as situations concerning protected areas or natural parks or situations with links to urban planning.

So, the information we received shows that there are initiatives aimed at reporting environmental limitations at the land registry, either directly or through related means, inasmuch as this sort of legal limitation really should take the form of trans-European information, since it results from Community-wide policies.

7.3. Future outlooks

The foregoing comments suggest a line of action for the future:

— sharing of the final experts' corner text and papers with registry officials throughout the European Union and countries desirous of joining the Union;
— an encounter (in Brussels, perhaps) with countries interested in joining the experiment of creating a European network of land-related environmental information;
— creation of a European environmental information network with the information provided by the competent official Community levels and official national levels, which could be channelled through the Office of the National Professional Association of Registrars in Brussels.

8. Expert's corner findings and action

Mariano Va Aguaviva, Land Registrar

8.1. Findings

The environment, whose primary foundation is the principle of prevention followed subsidiarily by punishment, must be protected by law. The land registry is an institution whose object is to ensure the security of legal traffic in real estate by means of reporting with full legal effects and is therefore an especially useful instrument for protecting the environment, for prevention requires information, and compliance with penalties and reparatory measures will be guaranteed by reporting in the registry. It is also very important for environmental limitations on land to be reported in the registry, because that will reinforce the registry's efficacy in achieving security in legal traffic. Fuller information increases security, decreases transaction costs and reduces market asymmetry.

The environment considers land a natural resource, and that consideration has an effect on the concept of proprietary rights. Any alteration of proprietary faculties must be recorded in the land registry. Normally, the registry (its books and databases) will restrict themselves to environmental information that involves concrete, specific pieces of property.

But, there is also another type of environmental information that must be known: (a) information about certain spatial areas and (b) information stemming from rules and plans that result directly in limitations without the need for registration. The registry office (public office where the land registry is located) ought to give information on both kinds, because it has the organisation, means, proximity to the citizen, etc., and can contribute effectively towards facilitating the right to access to that information in accordance with Directive 90/313/EEC of 7 June 1990. To put it another way, the registry office could also be an environmental information office using georeferenced image bases and connections to the databases of other institutions organised on a territorial basis.

The mercantile registry or registry of commerce is an especially appropriate place for recording rules, limitations, administrative and judicial action and other action of an environmental nature affecting companies, because of the magnifying effect of the disclosure it provides.

It is considered a wise idea for a legal registry of chattel goods to report the trade in emission rights.

8.2. Action to take for the work to continue

The problem has been pinpointed and solutions have been proposed. Now action must be taken to achieve the sought-after goal. Section 5 of the paper discusses the action to be undertaken immediately. Here, we shall propose the necessary means for providing continuity and expanding the realm of application:

Creation and outfitting of an environmental registry secretariat for the purpose of:

— disseminating the theoretical and practical work done. So that when information and documentation on the subject are sent in to the secretariat, they will immediately be sent out from there to all other interested parties;

— centralising the relations of registry institutions with other institutions organised on a territorial basis;

— coordinating actions with respect to universities, lectures, classes, seminars and other academic activities. Also, designing a legal journal on the registry and the environment.

8.2.1. There are various levels of action

— Autonomous Community of Catalonia
— Spain
— EU and adjoining countries
— international in general

In order to implement environmental mainstreaming, the informational sphere

must be expanded from the strictly legal to include other information having environmental repercussions. The secretariat will therefore maintain a relationship with the Environmental Impact Association and all other associations decided on.

The Office of the Autonomic President of the Official Association of Land Registrars of Catalonia in Barcelona is hereby proposed as provisional headquarters until definitive headquarters can be chosen by the interested parties.

9. Glossary of terms

1. Action to repeal claim for easement
Measure intended to protect the holder of title from easements on his or her property to which he or she has not consented. Based principally on the presumption in favour of the freedom of property encumbrance.

2. Public action
Legal mode of exercising rights acknowledged as belonging to a collective.

3. Examined activities
Those activities that are subjected to a special proceeding of examination for due legal form, in view of their capacity for generating nuisances, health hazards, noxiousness or danger.

4. Pollutants
The substances responsible for the process of environmental pollution. Pollutants are traditionally classified into three groups: wastes, micro-organisms and energies.

5. Caveat
Entry made in the registry's books, mainly provisional in nature and generally transitory, whose object is: (i) to ensure the results of a trial; (ii) to guarantee a perfect but unconsummated right; (iii) to prepare a final entry.

6. Authorisation
Administrative permission to perform an activity.

7. Precautionary
Measure or rule for preventing the achievement of a given end or guarding against that which might hamper the achievement of a given end.

8. Registry certificate
Public document issued at the applicant's request or the court's order, wherein the registrar, on his own responsibility and with the power to attest documents vested in his office, records the contents of the registry.

9. Environmental pollution
Process whereby certain substances and forms of energy alter the environment in a fashion different from that of the natural process.

10. Report
Notification of the commission of some illegal action, given to the competent authorities.

11. Environmental law
Set of rules pertaining to the environment.

12. Community, original or primary law
The law made up of the rules in the Treaties founding the European Community and the Treaties revising and enlarging the European Community. Its main object is to proclaim the communities' governing principles and to establish the structure of the European Community's foundation, powers and checks.

13. Derived Community law
The law made up of the rules emanating from the Community bodies themselves in their unilateral exercise of the powers attributed to them by treaty. Derived Community law is subordinate to primary law. It mainly comprises directives, regulations, decisions, recommendations and opinions.

14. Real right over immovable property
Right pertaining to a property or to another right in immovable property belonging to another person, granting the holder of the right certain faculties over the said properties or rights to the detriment of their own holders. Sometimes, the real right over immovable property determines the scope of use permitted to the property or other right, while sometimes it may serve as a guarantee of compliance with certain obligations.

15. Environmental audit or eco-audit
Management tool comprising a systematic, documented, periodic and objective evaluation of the performance of the organisation, management system and processes designed to protect the environment.

16. Proceeding
Procedure wherein someone's actions are judged.

17. Guarantee
Means of legal protection against some risk or need.

18. Public environmental management
Because it is a public asset, the environment must be safeguarded and protected by the public authorities, who implement environmental management on the basis of legislation and action.

19. Illicit
Not allowed by law.

20. Filing
The beginning of a proceeding or trial.

21. Indemnity
Recompense or compensation for damage.

22. Violation
The breaking of a legal rule.

23. Registry entry or registration
Definitive main entry of existence made in the land registry's entry books, to record in full the constitution, amendment or transfer of a right in immovable property.

24. Environmental legislation
Pillar of public environmental management consisting in the creation of a system of environmental protection rules that establishes certain objectives to be met and a series of measures for meeting them.

25. Licence
Administrative authorisation to do something.

26. Limitations and prohibitions on the proprietary right
Restrictions on the faculties making up or comprising the proprietary right, which sometimes affect the use and enjoyment of property and sometimes affect the use of property or even the free disposability of property. They may restrict the breadth of the right, or they may impede any exercise of the right. Generally, they are applied to protect an interest superior to the individual interest. Limitations, unlike real rights, do not give any corresponding right to another person.

27. Environment
Set of conditions that constitute the framework in which the existence of a living being or community takes place.

28. Simple information note
Means of formal reporting handled professionally, for information only and lacking in attesting qualities, about the contents of registry entries, and whereby a person expressly, tacitly or allegedly proving a legitimate interest can ascertain the economic particulars of registered assets, their owners, the nature of their owners' title and any prohibitions or restrictions on the owners or the registered rights.

29. Policing
Orderly state emanating from observance of legal rules. Activity of watching for observance of the said rules.

30. Prevention
The taking of measures to avoid harm.

31. Reporting
Set of means used to divulge or spread the news or knowledge of legal situations of import.

32. Registry reporting
The ongoing, organised exteriorisation of legal situations of real importance to produce general cognoscibility *erga omnes*, with certain legal effects on the reported situation.

33. Neighbourly relations
Body of rules that attempts to regulate the relations among the owners of adjoining properties through limitations on the exercise of proprietary rights, such that they can use their different proprietary rights compatibly.

34. Decision
Decree or sentence by the administrative or judicial authority.

35. Penalty
Punishment established by law for a person who violates the law.

36. Easement
Real right on immovable property in the benefit of another immovable property belonging to another person and obliging the owner of the property under easement to 'do something', 'let something be done' or 'not do something'. Easements can also be established to benefit a person.

37. Subsidiary liability
A liability that is in addition to a principle liability.

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