

# **The reformation of the land administration system in Sweden**

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**Key words:** Land administration, Land dispute resolution, Land registration,

## **SUMMARY**

The aim of this paper is to look into the land administration system in Sweden mainly focusing and on quality, innovations and reliability. The focus is firstly on the background, current status of land issues and land administration system building. After that, the innovations and description of the reliability of the land administration system in Sweden are discussed. Last, it will draw a summary of these studies.

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## **1. INTRODUCTION**

Services in the form of real property formation, property registration and information management are important parts of the infrastructure in the society. These services are characterized by rapid technological development and have great relevance for business development, sales of real estate and the credit system. The land administration system in Sweden has undergone a gradual reformation from a paper based to a digitized business at a rapid pace and has undergone intensive development in the 21<sup>st</sup> century.

Real property formation affects many conditions in society and many different needs are met, such as to develop housing construction, agriculture, forestry, transportation, energy solutions, but also to take advantage of cultural and conservation interests.

Land Registration is an important foundation for the stability of the real estate and credit markets. Through a reliable registration of title deeds, in-drawings and other loadings created a successful ownership, a secure credit and real estate sales are facilitated.

The Spatial Data Infrastructure creates an important platform for many important activities in modern society. Geographic data and maps are central for a variety of activities - planning, transport planning, total defense, rural, forestry, mineral and energy sectors.

## **2. BACKGROUND – HISTORY OF LAND ADMINISTRATION IN SWEDEN**

Land law in Sweden rests upon old traditions and rules. The oldest codes were written in the 13<sup>th</sup> century, when land was regarded more as a family belonging than an individual asset, and the law aimed to rather prevent than help people from trading with land.

In Sweden more modern views were adapted in the 15<sup>th</sup> and 16<sup>th</sup> centuries, when the increased ability to read and write made written forms for selling and mortgaging more common. The first registers were introduced in the 16<sup>th</sup> century and land has been registered since that time.

The Swedish Land Survey was founded as early as 1628, but it wasn't until the 1680s that the Swedish Land Survey became institutionalized and identified as a specific branch of the administration. A significant turning point both for Sweden and the Swedish Land Survey occurred in the 1680s when an ambitious development project to provide Swedish Land Survey with an identity as a governmental office started. The professional competence of surveyors was improved and the accuracy of maps and supervision was increased. In the 17<sup>th</sup> century the Swedish Land Survey started to measure locations using astronomical methods.

The implementation of land consolidation was the most important task of the Head Land Survey Office until the end of the 18th century, and transferred the focus from geographic surveys to cadastral surveys. In Sweden, land registration and cadastral surveying are being carried out within the National Land Survey or as it is called in Swedish "Lantmäteriet".

## **2.1 The Swedish Land code**

The Swedish cadastral system is mainly based on the Land Code, the Cadastral Procedure Acts, and the Land Data Bank Legislation. The Land Code of 1970 deals with the aspects of private real estate law like fixtures, purchase of land, mortgages, usufructs, easements and registration of rights to real property. The Code states that the whole territory is divided into real properties and that divisions can only be done through legal cadastral procedures. The Land Code also has regulations about the Land Register and gives rules about transfers, security, mortgages, easements, leaseholds and other encumbrances (Ericsson, 2001).

The Cadastral Procedures Acts include the Real Property Formation Act regulating subdivisions, consolidations, mutations, amalgamations, property determinations and registration. The law is valid in both urban and rural areas and authorizes the cadastral Surveyor to take decisions about changes in the division of land. The Land Data Bank Legislation includes 6 Acts that were enacted between 1973 and 1996 and that regulate the operations and content of the Land Data Bank. The Real Property Register Ordinance from 1974 defines for example that the real property register consists of a main register, a cadastral index map, a co-ordinate register, a plan register, a precinct register, an address register, and a joint facility register. The Land Data Bank Ordinance from 1974 states that the National Land Survey is responsible for the operation of the information systems dealing with the real property register and its included registers (KTH, 2014).

Lantmäteriet is the sole national administration that is responsible for spatial-related data in Sweden. Three previously separated organizations of land registration, mapping and cadastral surveying have merged into one reforms that has effected both processes, products and output.

## **3. INNOVATIONS AND DEVELOPMENT IN THE LAND ADMINISTRATION SYSTEM**

In the 1970s the nationwide database system, the "Land Data Bank System" (LDBS) was introduced. The following 25 years until 1995 the key contextual data was computerized. The main objective for implementing the LDBS was to support ease of transfer and applications and facilitate access to national information for a broad range of land management activities

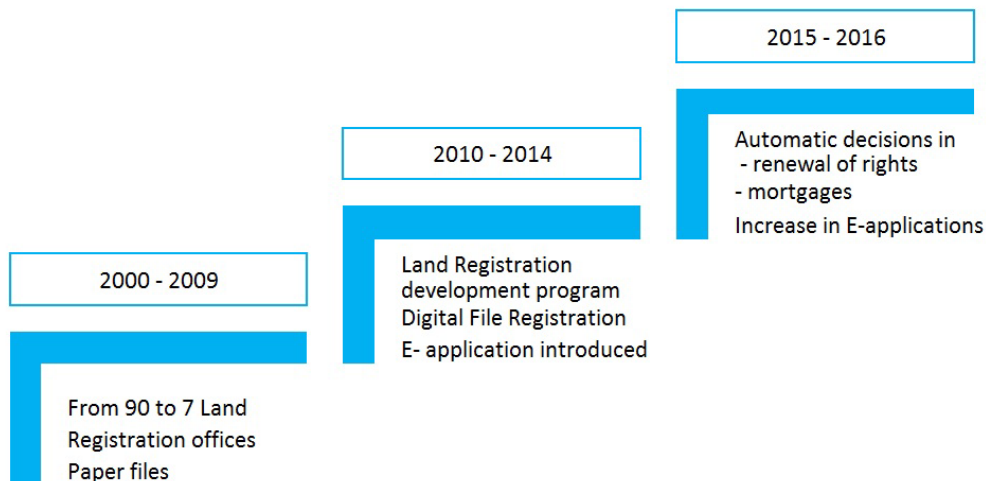
Its two main databases contain information from the "Property Register" from the cadastral and from the "Land Register" from the title registration organization. The system has also since then included information on the assessed value of the individual properties, taken from the tax administration. The system has been developed over time and nowadays also includes information on buildings and addresses. Also registers specifically for the needs of the

financial markets – such as the "Mortgage Certificate Register" – have been added.

In 2006 a strategy for the development of a national infrastructure for Spatial Data Infrastructure, in Sweden denoted as Infrastructure for Geodata, was introduced. Since then, work has been carried out in close collaboration with local authorities and regions and a range of other relevant organizations.

Land Registration has significantly improved in the 21th century. See figure 1 below.

Figure 1: Timeline of important developments in the Swedish Land Registration



The processes in Swedish Land Registration has been gradually digitalized and the he number of Land Registration offices has been reduced in the 21the century. Before 2009, Swedish land registration and cadastral surveys were carried out by two independent organizations. Land registration was then performed by the Land Register Authority, which was part of a District Court under the jurisdiction of the National Courts Administration within the Ministry of Justice. About 90 registration offices were reformed and were reduced to seven local registration offices under the purview of Lantmäteriet.

Land Registration in Sweden has The “Land Registration development program” between 2010 and 2014 aimed at streamlining the Land Registration process for real estate, through new IT solutions for the processing and storage of information. The program was also one step in the planned exodus from the mainframe environment. The program consisted of two tracks within the program. One track deals with the migration of data to the new storage environment. The second track relates to the development of the new Land Registration system and other computer systems. Development was needed to handle Land Registration information through the entire process. The whole process consists of information coming collected information via the LDBS and on to users in the community through the delivery system of Lantmäteriet. The Land register development program had a major impact on the data and the data formats delivered from the National Land Survey and therefore regular communication was needed to the customers.

The development of the new Land Registration system has provided new possibilities for improvements in the process. The new system is based on electronic processing where applications and documents are managed digitally, regardless of whether they arrive electronically or on paper. It has also provided a good foundation for several processes in Land Registration to be automated in 2015 and 2016.

The awareness of the historical background of the real property register and cadastral surveying within society is good, as is the social acceptance. Land administration structures are well adapted and suitable to the political and administrative structure. Sweden will have a unified Digital Cadastral Index Map by 2018 that is managed by the National Land Survey. This will additionally increase the quality of the information content and the transfer of the data from both surveyors within the National Land survey and from the 39 municipal offices into the central LDBS.

#### **4. QUALITY AND RELIABILITY OF THE SWEDISH LAND ADMINISTRATION SYSTEM**

The basic data structure of the Swedish cadastral system consists of the two entities "parcel" and "property". The land register records properties, which can consist of one or several properties; in urban areas, a property is normally only one parcel. Cadastral surveying is dealing with the single parcels, however it maintains in principle a property-based system. This structure has been grown historically, as the "registration of property" and its taxation was a main objective of the early cadastral system in the 17th century. Buildings are by law part of the properties and belong by definition to the same owner. The cadastral index map in itself does not show the complete legal situation of the land. Due to the central database, the integration of other spatial data however has been augmented and gradually over the years, further registers and data have been integrated into the LDBS. Steudler, D (2004)

The World Bank's doing business survey regarding 'registering property' section includes aspects of coverage, reliability, and transparency of property institutions. Figure 2 below shows the index for Sweden (27 out of 30) in the Land Administration Quality index.



Figure 2. Sweden's ranking on Land administration in the Doing business 2016 survey

#### 4.1 Reliability of the system

The LDBS is a central database containing information on all registered land in the country and all privately held land plots in the economy registered. Land is registered in the name of natural persons and it includes information on the gender of the primary land owner (45 % of the owners are female owners) or owners in the case of joint registration. The main users of the LDBS are those involved in real estate transactions; this includes banks, real estate agents, property companies, and insurance companies. As lawyers (notaries do not exist in Sweden) are rarely involved in real property transactions, they do not constitute a large user group. The "Mortgage Certificate Register" is an electronic database specifically designed for the needs of the financial market. Due to the reliability of the system, the total value of mortgages is almost 50% of the total market value of the real estates.

Table 1 below shows some facts and figures about Swedish land. These statistical indicators show the economic importance of the land and the land market.

Table 1: Economic facts and figures about Swedish Land 2015

Taxation	Taxation assessed real property value	US\$ 885,000 million
	Yearly transaction tax, titles mortgage	US\$ 1,260 million
The market	Total market value of real property	US\$ 1,180,000 million
	Total value of mortgages:	US\$ 546,000 million
Comparisons	Swedish GNP:	US\$ 485,000 million
	Swedish national state budget:	US\$ 102,000 million

- The assessed value real property for taxation purposes is almost twice the size of the Swedish GNP
- The total value of mortgages is almost 50% of the total market value of the real estates.
- The yearly transactions tax on titles and mortgages is about 1 % of the Swedish

national state budget.

In order to create better conditions for a safe and secure credit-working Lantmäteriet has proposed the abolishment of written mortgages certificates of immovable property. This also includes the phasing out of the concept of "mortgage deed" as such. The intention is that instead of introducing the registration (or deposit) directly in the Land Registry. Over 90 percent of all mortgages are in digital form and the remaining 10 percent is written mortgages.

The development and implementation of a new mortgage system will begin in 2016 with a requirement and needs investigative phase where also study the technical options implemented. A new system is estimated to be finished in the year 2020. The goal is that the new deposit system should be adjusted based on any changes in the legal framework in this area. One effect is to reduce administrative costs and shorter delivery times as a system without mortgages leads to a faster mortgage process.

#### **4.2 Transparency of the system**

The development of the LDBS in Sweden has been continually improved since the 1970's. Because the LDBS provides complete coverage of digital data it facilitates efficient the use of data. Land consolidation projects benefits from the facts that the property information already is in digital form and with the use of GIS technology the average duration of a land consolidation can be reduced considerably. The land administration system as a whole is very much centered on the LDBS, which holds a high degree of data integration and digitally accessed data. Internet solutions together with on-line access are increasingly used for the benefit of better user access to the customers.

Information about fee-schedules, service standards and information about required documents are posted on-line. However if someone wishes to consult specific plans for a certain area or the Immovable Property Register system is not accessible direct on-line for the public.

#### **4.3 Geographic coverage**

Sweden is divided into about 3.5 million real properties. Most properties are owned by private land owners, but also companies, municipalities, the Church and the State own land.

The LDBS is the central database containing information on all registered land in the country and all held land plots in the economy registered. The "Digital Cadastral Index Map" has been implemented into the LDBS and has a complete nationwide coverage since 2001. With the cadastral index map, it is possible to combine register and spatial related data. The comprehensive and complete data sets facilitate statistics and queries over the whole national territory, relatively easy to be carried out, as all data can be retrieved anytime from the database.

#### **4.4 Land dispute resolution**

Registration of the division of land into real properties (property registration), and of the

owners (land registration), has a long tradition in Sweden. It has been performed in a systematic way, covering all kind of properties and every spot on the ground, since the beginning of this century. Registration of immovable property is compulsory and the legal basis is stated in the Swedish Land Code. All transactions within the land registry are carried out by the Land Registration division. The Swedish Land code states advantages of being the registered owner but registration is not a prerequisite for ownership. However only registered owners can apply for mortgage.

Reliability of the cadastral and Land registration system is very good and there are few title and boundary disputes. The disputes that do occur are settled firstly with the assistance of Lantmäteriet and secondly in court. In Sweden, up to 1 200 land disputes end up in court every year. Domstolsverket (2015). The system of immovable property registration is subjected to at state guarantee. Information about titles are guaranteed by the state and the contents of the register is legally enforceable. The Land Registration is held responsible for verifying the contract compliance. Parties who engaged in good faith in a property transaction based on erroneous information certified by the immovable property register is entitled to economic compensation. The legal basis is the Swedish Damages Act.

## **5. CONCLUSION: IMPORTANT FACTORS FOR THE REFORMATION OF THE SWEDISH LAND ADMINISTRATION SYSTEM**

These are factors that have been important for improving Land Administration in Sweden.

1. **Framework of land and real property laws** that regulate the rights promoting transparency and trust. It is important that land administration is supported by appropriate legislation and that laws and policies are adapted to the current changes in society for example the digitalization process. One challenge in Sweden is that the Swedish Land Code must be modernized to support and simplify digital transfer of real estate.
2. **Effective Public Institutions** responsible for effective and processes in Land administration. Unified information as opposed to unstructured or semi-structured information content is important. These are primary drivers included the need to digitalize information content and reduce risk through compliance. The early implementations of LDBS have provided significant value and solved important problems; they also demonstrated limitations that have led to demand for the next generation — Unified Information Access. However all information is not accessible direct on-line for the public today in Sweden.
3. **Information systems** that delivers quality information. Transparency and easy accessible systems are vital. The systems must be official i.e. generally accessible and guaranteed by the state and made available for both the public and the business sector. The coverage of the information is also vital. In Sweden today the LDBS contains 100 % coverage of information on all registered land in the country and several, but not all, other important layers of information.



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