

Cadastral Procedures in the Nordic Countries - A Comparison of Prices Costs and Handling Times

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Key words: cadastre, cost management, benchmarking project

SUMMARY

A cadastral system helps a country to maintain the right to own land and the security of its use. It contains information about land use, division into property units and how real estate is changed and registered. In the Nordic countries the cadastral systems have a long historical background: they have been developed during past centuries and have a distinctive national character. Because the division into property units provides security and stability in many societies, and is a part of the infrastructure, the real estate sector is strictly regulated by legislation.

Within the framework of Nordic cooperation a benchmarking project on the subject of cadastre was implemented during 2006. The aim of the project, which was commissioned by the Nordic Cadastral Directors, was to compare the different real property management systems that are in use in the five Nordic countries and collect and compile information that could serve as the base for increased cost- efficiency and better client-service in cadastral procedures in the respective countries. The study includes prices, costs and financing for a standard subdivision of a real estate unit with an area of less than 3 000 m², for housing development.

Taking into consideration historical background and country-specific aspects it is not possible to single out any system as better than the others. There are many similarities, for example between Sweden and Finland and between Denmark and Norway, but there are also differences. Our aim was to look more closely at these differences and similarities.

The inventory of prices and costs for a subdivision covers the full cycle of activities from the receipt of an application to the registration of the new property unit in the real property register. The inventory ranks the countries from cheap to expensive in the following order: Iceland, Finland, Sweden, Norway and Denmark. In Denmark a large proportion of the price consists of VAT and a special tax for every newly created real property unit.

With regard to handling-times for a subdivision the study showed the following ranking from shortest to longest: Denmark, Iceland, Norway, Sweden and Finland. The average time required for a subdivision varied between 15 and 20 hours but was broadly similar in the five countries.

SUMMARY IN SWEDISH

Fastighetssystemen, dvs. indelningen i fastigheter, hur fastigheterna förändras och registreras, utgör grund för rätten att äga och använda mark. De har i Norden en lång historisk bakgrund. Systemen har vuxit fram under de senaste århundradena och har en viss nationell särart även om det finns många likheter mellan länderna. Fastighetsområdet är starkt lagreglerat eftersom fastighetsindelningen ska ge trygghet och stabilitet i en mängd samhällsnyttiga funktioner och utgör en del av infrastrukturen i Norden. Några snabba förändringar sker inte utan successiva förbättringar i lagstiftning och organisation görs med hänsyn till samhällsutvecklingen.

Inom ramen för det nordiska samarbetet inom fastighetsområdet genomfördes ett benchmarkingprojekt under 2006. Beställare var matrikelcheferna på de nordiska lantmäteriverken.

Med beaktande av den historiska bakgrunden och den nationella särarten slår vi i projektet fast att denna studie inte visar att det ena fastighetssystemet är bättre än det andra. Däremot finns många likheter, t ex mellan Sverige och Finland samt mellan Norge och Danmark men också olikheter. Vi gör i studien ett försök att analysera dessa likheter och olikheter. Det system som finns på Island avviker dock från fastighetssystemen i övriga nordiska länder. I studien har vi också beskrivit processen, dvs. hur det går till vid en avstyckning genom fastighetsbildning, fastighetsregistrering och inskrivning.

I studien ingick att titta på pris, kostnader och finansiering av den vanligaste lantmäteriförrettningen, nämligen avstyckning av en bostadstomt. Det vi fann var att pris och kostnader ofta inte särskiljs, eftersom systemen oftast bygger på självkostnadsprincipen och att kostnadsuppföljningar inte sker fullt ut.

Vid inventering av priset och kostnaden för en avstyckning från ansökan till registrering av den nya fastigheten fann vi följande ordning från billig till dyr: Island, Finland, Sverige, Norge och Danmark. I Danmark utgör momsen på tjänsten och en skatt en avsevärd del av priset.

När det gäller tid för handläggning av en avstyckning fann vi följande ordning ifrån snabb leverans till långsam: Danmark, Island, Norge, Sverige och Finland.

När det gäller genomsnittlig tidsåtgång för en avstyckning låg samtliga länder relativt lika, mellan 15-20 timmar medan Island låg lägre. Vi kan konstatera att när man har en sammanhållen process fastighetsbildning/-registrering, såsom i Finland och Sverige, ger det kostnadseffektivitet och fördelar för kunderna.

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1. INTRODUCTION

A cadastral system helps a country to maintain the right to own and use land. It contains information about land use, division into property units and how real estate is changed and registered. In the Nordic countries cadastral systems have a long historical background: the systems have been developed during the past centuries and have a distinctive national character, even though there are both similarities and differences between the five countries. Because the division into property units provides security and stability in many societies and is a part of the infrastructure, the real estate sector is strictly regulated by legislation. Changes do not occur quickly; they take place in the form of successive improvements to legislation and organisations, which are a response to and reflect developments within society.

The study includes prices, costs and financing for a standard subdivision of a real estate unit with an area of less than 3 000 m², for housing development. The inventory of prices and costs for a subdivision covers the full cycle of activities from the receipt of an application to the registration of the new property unit in the real property register.

There are several on-going Nordic projects on the subject of real property formation. The general aim of these projects is: to learn from each other; to make better use of each other's experience than hitherto; and to provide products and services that represent increasingly good value for money for clients.

2. PROJECT DESCRIPTION AND PURPOSE

Within the framework of Nordic co-operation a benchmarking project on the subject of cadastre was implemented during 2006. The project was commissioned by the Nordic Cadastral Directors and the results were presented in May 2006 at a meeting in Reykjavik, Iceland. The steering committee consisted of Magnar Danielsen, Statens Kartverk, Norway (chairman), Sören Reeberg Nielsen, Kort- och Matrikelstyrelsen (KMS), Denmark, Arvo Kokkonen, Lantmäteriverket, Finland, Lars Jansson, Lantmäteriet, Sweden and Margrét Hauksdóttir, Landmaelinger, Iceland. The project manager was Göran Eriksson, Lantmäteriet, Sweden and project co-worker Karin Lindgren Gardby, Stockholm.

The document "To make a reliable comparison (benchmarking) of prices, costs and financing for a standard subdivision" is a short version of the project report. An important requirement was that the implementation of the project should follow a strict timetable. This was achieved: the project started in October 2005 and was completed as planned in June 2006. The basic aim of the project was to carry out a study and produce a report that would be easy to understand and as correct as possible on the basis of the material with which we were supplied by each country.

3. THE REPORT

The project report consists of the following chapters:

1. Summary, introduction
2. The subdivision process in the Nordic countries
3. Inventory
 - Fees, costs, financing
 - Handling-time for a subdivision and the total time consumption
 - Specification of prices for the subdivision and registration of ownership
4. Analysis of similarities and differences
5. Suggestions for further studies

Copies of important documents, which are part of the contents of the cadastral dossier for the subdivision in each country, are included as appendices to the report. The documents include cadastral index maps, descriptions of the real estate legislations and decisions taken.

Within the frame of this project we also studied the successive steps in a subdivision: real property formation, real property registration and registration of title. The full report is available at www.lantmateriet.se.

4. THE BASIS FOR THE COMPARISON

The study includes prices, costs and financing for a standard subdivision of a real estate unit with an area of less than 3 000 m², for housing development. One conclusion that could be drawn was that often no clear distinction is made between the price that the client pays and production costs. This is because the systems are based on the principal of full cost recovery and that therefore costs are not fully followed-up. The basis for the comparison was:

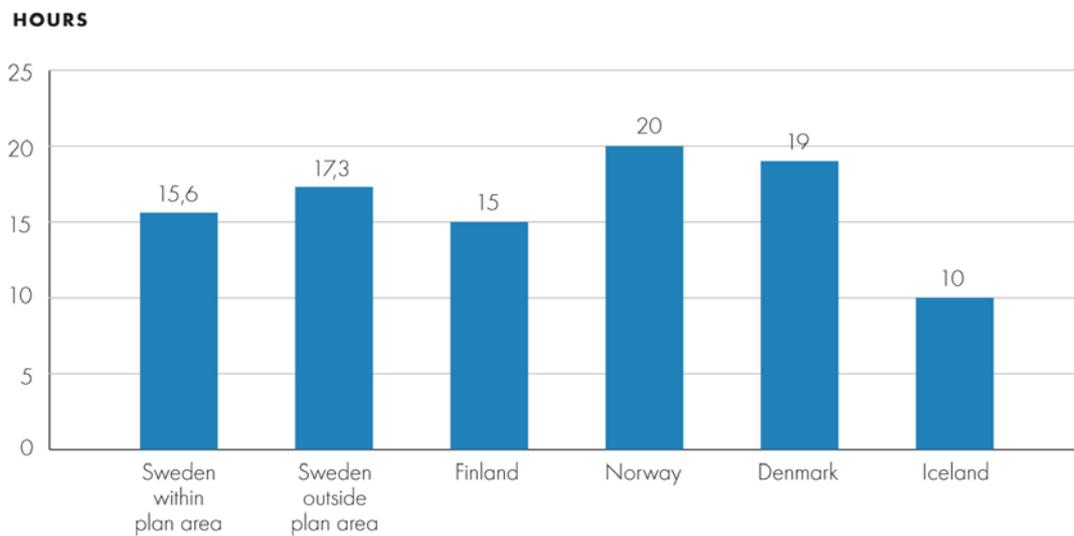
- Subdivision of a real estate unit for housing inside and outside a detailed development plan.
- Area < 3000 m²
- Seller and buyer have agreed and a contract of sale exists
- Measurements such as field work are included
- Establishing a road servitude
- Including registration of the real estate unit, i.e. recording in the real property register and on the cadastral index map
- Prices and costs are referred to 2005 price levels
- Amounts are given in the country's own currency and in €
- The residual parcel has a mortgage which should no longer be valid in the subdivided parcel
- Costs for registration of ownership

Note that the inventory of time consumption, prices, costs and handling-time for a subdivision covers the full cycle from the receipt of an application to registration of the new property unit in the real property register.

5. RESULTS OF THE COMPARISON

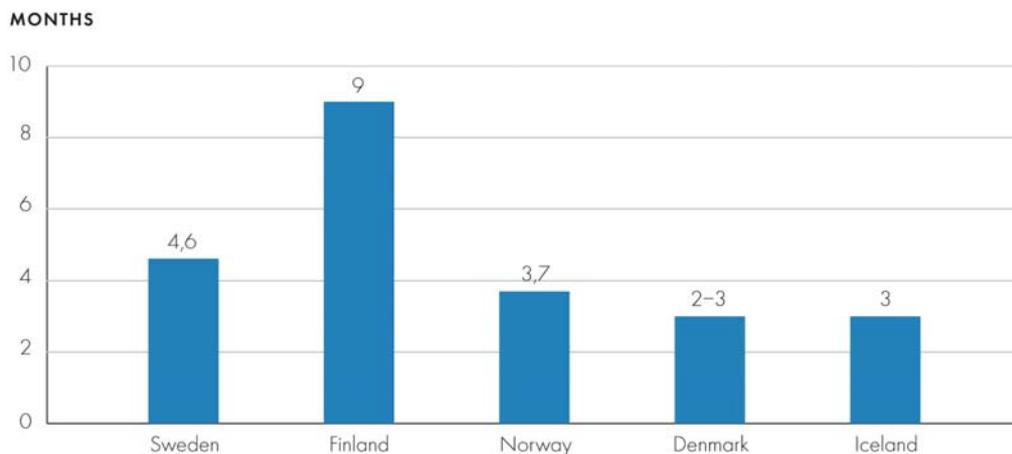
5.1 Total Time Consumption in Hours

The average time required for a subdivision in the five countries varied between 15 and 20 hours. The work was carried out in the shortest time in Iceland.



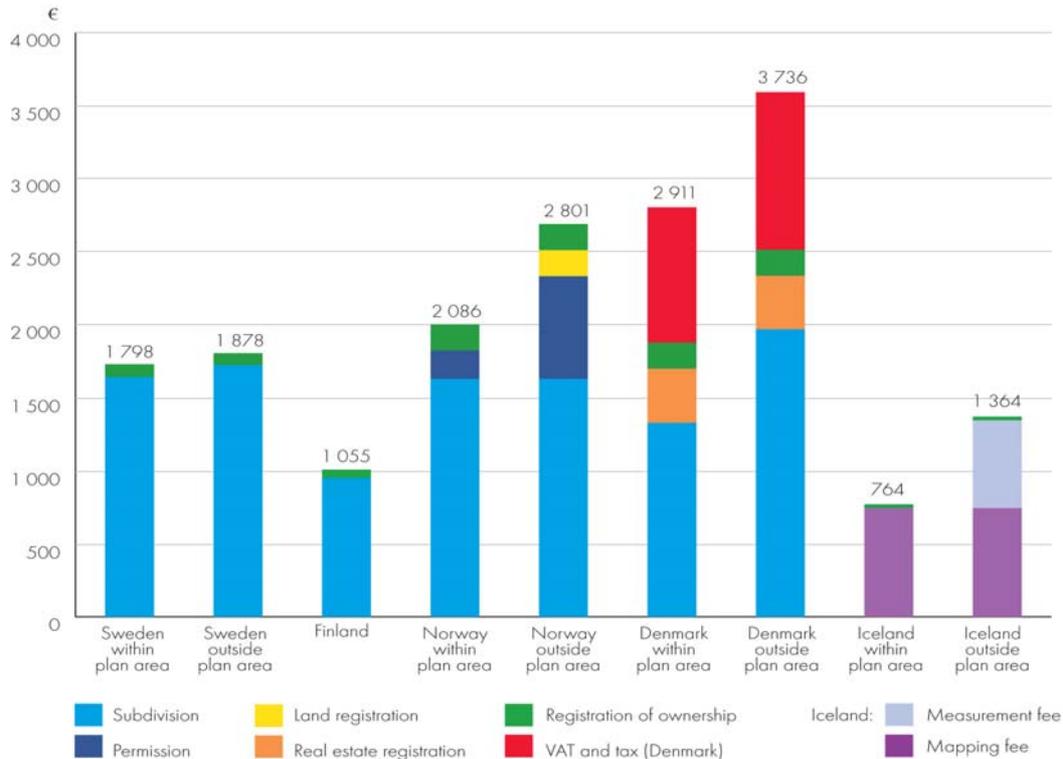
5.2 The Handling-time in Months

The ranking based on the total time required for full completion of the cadastral procedure - from shortest to longest - was: Denmark, Iceland, Norway, Sweden and Finland.



5.3 Total Price Paid (in €) by the Client

The total price paid by the client is perhaps the most interesting part of this study. The study gave the following result – from cheapest to most expensive: Iceland, Finland, Sweden, Norway and Denmark. It should be noted that in Denmark a large part of the price comprises VAT on the service and a special tax of €660 for every newly created real property unit. All prices in the chart



Some comments on the above bar chart:

Sweden: The blue part of the bar represents the cost for the cadastral procedure at the Cadastral Authority and the green is the cost for registration of ownership in the land register. The total price paid by the client is approximately €1 800.

Finland: The same process as in Sweden: The blue part of the bar represents the cost for the cadastral procedure at the Cadastral Bureau and the green is the cost for the registration of ownership. The total price paid by the client is approximately €1 055.

Norway within and outside plan area: costs for the cadastral procedure, which is carried out by the municipality, are shown in blue and the grey parts in the bar are the costs for approval in accordance with the Building Act and - outside plan area - also the cost for permission in accordance with the Agriculture Law. The yellow part of the bar represents the cost for

registration of the easement. The total price paid by the client is approximately €2 000 within plan area and €2 800 outside plan area.

Denmark within and outside plan area: the blue part of the bar is the cost for the cadastral procedure carried out by the private land surveyor and the brown part represents the fee to KMS for real estate registration (€250). The green part is the cost for registration of ownership and the red is the VAT and the special tax levied for a newly created real property unit. The total price paid by the client is approximately €2 900 – 3 730.

Iceland: A survey fee and a mapping fee are paid to the municipality. The total price paid by the client is between €760-1360.

5.4 Costs for Registration of Ownership and Stamp Duty (Transfer Tax)

	Stamp Duty % of amount	Registration of ownership €	Mortgage deed €	Mortgage deed % of amount
Sweden	1,5	86	39	2
Finland	4,0	60	40	0
Norway	2,5	186	234	–
Denmark	0,6	185	185	1,5
Iceland	0,4	14	13	1,5

6. ANALYSIS OF SIMILARITIES AND DIFFERENCES

Taking historical background and individual national aspects into account, it was not possible to rank the systems on the basis of overall quality: no system could be singled out as significantly better than the other systems. There are many similarities, for example between Sweden and Finland and between Denmark and Norway, but there are also differences. Our aim was to identify and evaluate these similarities and differences. It should be noted that the Icelandic system differs significantly from the cadastral systems in the other Nordic countries.

In this project the benchmark system was the Swedish system. In section 6.2-6.5 we compare the other four national systems with the Swedish system.

6.1 Sweden

In Sweden real property formation for a housing development unit has the following main characteristics:

- Financed by the involved parties; no governmental subsidy
- Pricing is ratified by Lantmäteriet based on the principle of full cost recovery
- Government and municipal monopoly – an official assignment
- Analysis of suitability, consultations, establishing of rights
- The cadastral surveyor investigates, takes decisions and has the overall responsibility for the cadastral procedure

- New boundaries are demarcated and a cadastral map is produced
- Management in the digital Trossen system
- Cadastral surveys and registration in a single process
- The subdivided parcel is freed from mortgages on the residual property in the cadastral procedure
- The cadastral surveyor has a land survey (MSc) qualification or is a qualified technician.

6.2 Analysis: Finland compared to Sweden

A comparison of the Swedish and Finnish systems reveals the following similarities and differences:

Similarities

- Government and municipal monopoly – an official assignment
- Real estate legislation is generally similar
- Management in the digital JAKO system
- Cadastral surveys and registration in a single process
- Implementation by surveyor, sometimes MSc

Differences

- Prices are set by the government, fixed prices
- Registration of ownership before subdivision, witness of purchase
- No analysis of suitability or consultations
- Schematic cadastral map, no detailed measurements, no field surveying during the winter months
- Compulsory meeting when taking decisions
- Long handling-time but ownership formalized at an early stage
- Price is significantly lower than in Sweden.

6.3 Analysis: Norway compared to Sweden

Similarities

- Careful analysis of suitability, consultations
- Field survey, measurements and presentation of cadastral map
- Time for handing relatively similar

Differences

- Cadastral procedure divided into three parts:
 1. Application and permission,
 2. Subdivision (municipality)
 3. Registration in *GAB* and *grunnboka* (governmental)
- Price is set by individual municipality according to price policy
- Official employed by the municipality
- Transfer of responsibility for land registration to Statens Kartverk is in progress

- Other cadastral procedures are the responsibility of courts, Jordskifteretterna
- The subdivided parcel is not freed from mortgages on the residual property in the cadastral procedure
- The total price is higher than in Sweden

6.4 Analysis: Denmark Compared to Sweden

Similarities

- Careful analysis of suitability, consultations, approval by the municipality
- Field survey, measurements and presentation of cadastral map
- Digital support in the MIA system for Kort- och Matrikelstyrelsen (KMS)

Differences

- Competing private survey companies
- The price is set in consultation with the client based on the company's general prices
- Short time for implementation, priorities are made
- Registration of real estate is done by KMS, i.e. divided process
- New parcel not freed from mortgages in the cadastral procedure
- Cadastral surveyor prepares basic data for decision-making. The municipality takes the final decision
- The cadastral surveyor must have the required qualifications
- Price significantly higher: VAT 25% and a special tax for every new real property unit.

6.5 Analysis: Iceland

It is difficult to make a comparison because the cadastral system in Iceland is different from systems in the other Nordic countries. Among other things the land is leased (site leasehold) by the house-owner and the municipality and the State own the ground.

7. CONCLUSION

7.1 The Cadastral system

- Historical background
- Distinctive national character
- No system is better than the others

7.2 General Similarities

The systems in Sweden and Finland are very similar. Denmark and Norway are broadly similar. The system in Iceland differs significantly.

7.3 Price/Cost Rankings from Lowest to Highest:

Iceland, Finland, Sweden, Norway and Denmark

7.4 Time of Delivery from fast to slow:

Denmark, Iceland, Norway, Sweden, Finland

7.5 Average Time for Implementation

Very similar

7.6 The Cadastral Process

We are convinced that a closely integrated process results in lower costs.

8. SUGGESTIONS FOR FURTHER STUDIES

As it was necessary to restrict the scope of the project to a number of overarching issues, it is recommended in the report that the following topics should be the subject of in-depth studies:

- Prices and costs, productivity
- Subdivision - land registration
- Quality of the real property registers
- Web communication, e-signatures
- Cadastral procedure for infrastructure, expropriation of land for roads, railways, electricity, telephone etc.

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BIOGRAPHICAL NOTES

Göran Eriksson: Marketing Director, Cadastral Services at Lantmäteriet (The National Land Survey of Sweden) 1992-2007, District Land Surveyor 1976-92, Expert at Ministry of Environment 1999, Chairman of The Swedish Association of Chartered Surveyors 1993-96. MSc in Surveying and Mapping at the Royal Institute of Technology in Stockholm 1966. Member of the Swedish Organisation Committee of Working Week 2008 in Stockholm.

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