Multipurpose use of the Cadastre

Margrét HAUKSDÓTTIR, Iceland

Key words: Register Iceland, Þjóðskrá Íslands, Cadastre, access, municipalities, District magistrates, Island.is, appraisal, mass valuation, market price, Land Registry, real property, real estate, fire insurance value

SUMMARY

This paper describes the Icelandic cadastre built and maintained by Registers Iceland. The cadastre is considered one of the fundamental registries of the Icelandic state. All land and buildings in Iceland are registered in the cadastre. Register Iceland appraises all real estate annually at market value for property tax purposes and also calculates a discounted rebuilding cost for all properties which forms the bases for the fire insurance value. The fire insurance value is the value that the owner must legally insure the property for.

The ideology of the cadastre is described as well as the role of the municipalities, the district commissioners and Registers Iceland in data entry. District commissioners are responsible for legal registration of documents and deeds and their registration is founded on the information about the property in the cadastre. The cadastre serves multiple public entities and the creation of special purpose property databases by public organizations is systematically and legally discouraged.

When new needs in the field of property appraisal arise it is the role of Registers Iceland to fulfil them through the continued improvement of systems and procedures. Registers Iceland does this through the development of the cadastre and when appropriate through creating derived databases that build on the information in the cadastre. It is not enough to collect the information, that information must also be disseminated widely through the society and the processes governing this dissemination are described at the end of the paper.

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1 INTRODUCTION

Registers Iceland (RI) was established in 1977 charged with keeping a register of real properties and buildings valuing these properties at market value for taxation purposes. To be able to determine the real estate value, the organisation has been collecting information about the housing market and receives all sales contracts on real property. Since 1994 RI has also been in charge of determining construction cost to be used for the compulsory fire insurance.

Under the provisions of the law from 1976 it was decided that a Land Registry complete with data on ownership, mortgages, and other housing secured papers, which was the responsibility of the courts at that time, would become part of the cadastre when such a change was deemed timely. This became a reality 25 years later.¹ In the beginning RI received all property data from over 230 municipalities. Each municipality had maintained their own register of properties.

The design of the Icelandic cadastre system dates back to 1995, but in 2001 a project of integration between the property registry and the land registry was launched. The municipalities had been working in a common system since 1995 so the data was already uniform. The districts magistrates' property and deed registration was independent however. This resulted in discrepancies between the information listed in RI's property registry and the districts magistrates' registry which created uncertainty about the information.

The main reasons for merging these two registries was to harmonize data about real properties, ensuring correct ownership information and a central point of access. The aim is that the cadastre should be able to serve other authorities, both at the municipal and state level, which are, in one way or another, involved with real properties.

In past years Registers Iceland has been given new and diverse responsibilities. A merger with the National Registry, in July 2010, increased the number of staff by 1/3 and means that RI is now also in charge of keeping a National Registry of people and issuing passports and ID cards.

Six months after the merger the organization was also charged with running and developing the national online portal <u>www.island.is</u> (Iceland.is). The portal houses important information for citizens and open government data, mainly about the national budget and geographical

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¹ Guðmundur J. Guðmundsson. "Fasteignamat á Íslandi – Frá tíundarlögum til Landskrár fasteigna", *Ársskýrsla* 2000, *Fasteignamat ríkisins*.

information. Island.is also runs an authentication service called Islykill (Icekey), enabling citizens to authenticate themselves electronically when interacting with both public and private organizations. Currently over 80 different service providers make use of the Islykill service. Electronic governance is also enabled through Island.is where official entities can share information with citizens, in a closed part of the website (my pages), such as official notices, immunization information, and car registrations. Registers Iceland also provides all IT support for the district commissioners and develops and maintains several custom made IT systems.

Iceland has 8 different ministries and RI falls under the Ministry of the Interior which is also the ministry in charge of the municipalities and the district magistrates' offices both of which interact with the cadastre and the national registry. Belonging to a single ministry makes the governance simpler and expedites improvements. RI is defined as an integral part of the infrastructure of Iceland.

1.1 The structure of the cadastre

Iceland has a central cadastre, containing information entered and used by central and local government for various purposes. The guiding principle is to provide a register with multiple uses that satisfies the requirements of the public, businesses and the government. Data entry is carried out by RI as well as Iceland's 74 municipalities and 25 district magistrates.

The cadastre consists of information on the land, rights and structures that are associated with a real property. As well as administering the cadastre it is a role of RI to collect information and determine property tax and fire insurance values. The property tax valuation is at market prices and used to determine local and central government property charges. Fire insurance valuation is based on the discounted construction cost of a building plus the clean-up cost.

The main sections of the cadastre are as follows:

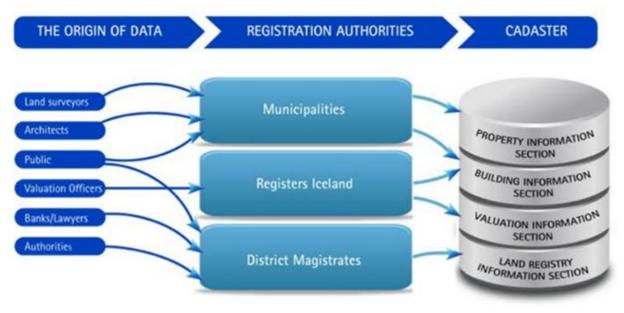
The **Property Information Section** holds the basic information about a property, such as address, register unit identifier, location and boundaries. This information cannot be amended without the agreement of all three registration authorities: the municipality, the district magistrate and RI.

The **Building Information Section** includes information about the type of building, its size, building material, year of construction, size in square and cubic meters, number of floors, number of rooms, use etc. This information originates from the municipal building inspectors and is input into the cadastre by them.

The **Valuation Information Section** contains a detailed description of the condition and the quality of a building, e.g. flooring material, fittings as well as other interior information. This section also holds property tax and fire insurance valuation information- and amounts. RI has the responsibility by law to undertake an annual revaluation of all real properties.

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The **Land Registry Information Section** contains information on the legal owner of a property and other right holders, as well as mortgages and other encumbrances. The districts commissioners' registration is based on the description of the property in the property information section. The district magistrate enters information into this section of the land register.



Picture 1. Origin and type of information in the cadastre

2 ROLE OF THE REGISTRATION AUTHORITIES

There are three parties responsible for data entry in the cadastre; municipalities, Registers Iceland and the district commissioners (who are in charge of the legal registrations). These parties belonged to different ministries in the past which slowed down the improvements and changes necessary to the cadastre. Ministries in Iceland have recently gone from 13 to 8 leading to a single ministry being in charge of municipalities, Registers Iceland and district commissioners; the ministry of the interior. This change will enable the parties to better understand each other's needs as well as their own and will speed up the development process.

2.1 Municipalities

The building inspector of each municipality is responsible for approving building permits and supplying RI information about land and land improvements (such as buildings) in their municipality. The building inspector pre-registers the information into a registration system,

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used by all municipalities, which is integrated with the cadastre. This registration system was developed in 1995 and was implemented in all municipalities over a number of years. Prior to the common registration system all information about land and buildings was submitted on paper, including approved drawings and building permits. All submissions are now electronic through the registration system. Drawings and approved permits are still sent on paper by some municipalities. This is being phased out with an increase in digitalization. In the future RI will more widely have electronic access to the drawings and permits making the system cheaper and more efficient for everyone. The responsibility for the accuracy of the data lies with the originating party, the building inspector, and in case of errors RI will send a request for clarification to the municipalities.

2.2 Registers Iceland

Registers Iceland owns and manages the cadastre, overseeing the technical and legal development of the system and training and supporting the other registration authorities in its use. It provides a service centre open every working day to help users with any queries.

RI ensures that the information is as current as possible and to this end it stipulates the form, content and timing of the pre-registration information supplied by the building inspector. If RI is made aware of inaccuracies in the cadastre it has the authority to request that the information be reviewed in conjunction with the municipality.

Once a municipality has pre-registered a new lot or building, RI perform quality controls and uses the information to calculate the fire insurance and property appraisal for that new entry. Legally this is to happen within 60 days but in most cases the real transaction time is two weeks. It is in the municipalities' best interest to get new properties entered quickly since they can levy property taxes and fees the month following the registration.

Registers Iceland reappraises all properties in Iceland no later than the 30th of May each year. The new appraisal takes effect on the 31st December of the same year and is the bases for property taxation in the following year. All property taxes in Iceland go to the municipalities. RI is constantly improving the appraisal methodology and has successfully taken up new methods for residential real estate. These new methods are based on a pure market approach which is possible due to the detailed property records and multiple sales records available. The property appraisal is based on formulas that are derived using statistical methods linking sales prices to building characteristics and locational variables. Information about these formulas and how they are derived is published publicly annually. In 2011 The International Association of Assessing Officers (IAAO) awarded RI the Distinguished Assessment Jurisdiction Award for this improvement in residential real estate appraisal.

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Picture 2. Indicators of Property Value

RI is currently finalizing new methods for commercial real estate. These new methods are based on the income approach, and will transform the appraisal of commercial real estate leading to much fairer appraisals and also give appraisers better tools to work with.

2.3 District Magistrates

District magistrates all have a legal education. They oversee public administration within their district; including civil marriages, divorces, foreclosure proceedings, police and customs matters and legal registration of real properties, ships, airplanes and vehicles.

Until 1992 district magistrates were also district judges and legal registration was a court matter. Since then legal registration has been a matter of public administration, meaning that non-judicial complaint procedures are possible before resorting to the courts system.

There is no legal requirement for registration documents to be produced by a legal professional. It is not unknown for individuals to prepare their own sales deeds and documents, but the majority of these documents are prepared by lawyers and state-certified real estate agents and mortgages documents are usually produced by financial institutions. Documents for registration must be submitted in duplicate. One copy must be on authorised document paper and will be retained by the District Magistrate. The second copy will be stamped on completion of legal registration and returned to the right-holder.

A document is entered into the "daylist" on the day it is submitted for registration. This is the date from which the document has priority regardless of when registration is actually completed. In most cases legal registration takes only two days but the Magistrate has up to 14 days to make a decision as to whether a document is admissible for registration.

3 CADASTER, IT SYSTEMS AND DERIVED SIDE REGISTERS

Decentralized registration at the place of origin, multipurpose use and singular registration of information is a guiding principle in the management and structure of the cadastre in Iceland.

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The cadastre serves multiple public entities and the creation of special purpose property databases by public organizations is systematically and legally discouraged. When new needs in the field of property registration arise it is the role of RI to fulfil them through the continued improvement of systems, connections and procedures.

A few databases built upon the information in the property registry have been created. These databases all use the same identifiers as the cadastre and it is therefore possible to link them to data such as property details and locational information. Two of these databases are used as a foundation for property valuations; a database of sales contracts and a database of rental contracts. There is also a special database listing government properties and legal farms, which receive special support because of this status.

A tax levy system for municipalities was introduced at the beginning of 2007. This system uses RI's property data and property appraisals. RI developed and maintains the system. Municipalities impose property taxes and many other fees related to properties such as ground rent, water fee, sewage fee and more. It was considered a great simplification for all municipalities to use the same IT system for calculating property taxes and fees. The benefits include more transparency and a standardized approach by all municipalities leading to better decisions within the state municipal equalization fund. Each municipality decides their own tax rate within legal boundaries. The tax levy system can handle each municipalities approach to property taxation and is well equipped to deal with changing percentages. A tax simulation tool is included in the system allowing the municipalities to see the effects of different tax rates. This is widely used for budgetary purposes. The property appraisal used to be published in November and took effect on the 31st of December of the same year. This was changed in 2009 and now the appraisal is February price levels, published in June and takes effect on the 31st of December of the same year and takes effect on the 31st of December of the same year. This was changed in 2009 and now the appraisal is February price levels, published in June and takes effect on the 31st of December of the same year. This was changed in 2009 and now the appraisal is February price levels, published in June and takes effect on the 31st of December of the same year. This was changed in 2009 and now the appraisal is February price levels, published in June and takes effect on the 31st of December of the same year. This was changed in 2009 and now the appraisal is February price levels, published in June and takes effect on the 31st of December of the same year. This was done in part to allow the municipalities to take full advantage of the tax simulation tool when doing their budgets each autumn

4 INFORMATION ACCESS

4.1 Policies on the Information Society and Public Access to Data

The vision for Iceland's future is a society taking full advantage of information technology. This is the basis for the municipal and State policy 2013- 2016 expressed in e-Power Expansion:

"When examining Iceland's status in adopting information technology and comparing it with neighbouring countries, considerable strengths appear in some areas, while weaknesses are revealed in others. Surveys show that Iceland's general levels of computer ownership, Internet access and high-speed connections rank among the best in the world today. The same is true in relation to general Internet activity and the actual utilization of services offered

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online. However, when the focus turns to government services supplied online, a different picture emerges."

In short, Iceland's status is currently that the public is ready to use the services offered, a good telecommunications infrastructure is available, the general populace owns the relevant equipment and is already online, but government sector bodies fail to make adequate use of the inherent opportunities. What these opportunities involve is installing online self-service and upgrading government service efficiency.

Worthy of mention are the extensive programs widely initiated for providing access to public sector information and databases, with the object of giving the general populace opportunities to monitor public sector activities and also of encouraging innovation and the re-use of public sector information for commercial purposes.

In line with this objective, is an RI initiative which opened access to the basic GIS information in the Cadastre Database back in 2001. This included the name and identifier of a property, its size in square metres and the valuation amounts. It is possible to access an aerial photo of a specific building or neighbourhood, which also displays the basic information. One of the advantages of making access to basic data free of charge is that this provides feedback regarding accuracy acting as another form of quality control.

4.2 New type of information from the Database with the aim of providing better services

Public access to data could be improved by processing data from the database for which there might be public demand and which might be expected to be useful to the public. For many years RI has been publishing weekly and monthly bulletins on its website with various kinds of information useful for economic analysts and the public alike.

These bulletins include diverse data, including sales volume, sales prices and a monthly property price and property rental index for the capital area. RI has an annual publication schedule (totalling around 150 publications). Picture 3 shows the publications planned for June, July and August 2014.

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	í júní	Fasteignamat 2014 kynnt
	4. júní 2014	Fasteignamarkaðurinn í mánuðinum eftir landshlutum
	10. júní 2014	Fjöldi þinglýstra leigusamninga um íbúðarhúsnæði eftir landshlutum
	19. júní 2014	Vísitala íbúðaverðs á höfuðborgarsvæðinu
	20. júní 2014	Upplýsingar um leiguverð íbúðarhúsnæðis
	25. júní 2014	Fjöldi útgefina vegabréfa
	26. júní 2014	Viðskipti með atvinnuhúsnæði í maí
	2. júlí 2014	Fasteignamarkaðurinn í mánuðinum eftir landshlutum
	8. júlí 2014	Fjöldi þinglýstra leigusamninga um íbúðarhúsnæði eftir landshlutum
	11. júlí 2014	Trúfélagsbreytingar
	17. júlí 2014	Vísitala íbúðaverðs á höfuðborgarsvæðinu
	18. júlí 2014	Upplýsingar um leiguverð íbúðarhúsnæðis
	24. júlí 2014	Viðskipti með atvinnuhúsnæði í júní
	29. júlí 2014	Fjöldi útgefina vegabréfa
	30. júlí 2014	Hverjir eiga viðskipti með íbúðarhúsnæði?
	6. ágúst 2014	Fasteignamarkaðurinn í mánuðinum eftir landshlutum
1	2. ágúst 2014	Fjöldi þinglýstra leigusamninga um íbúðarhúsnæði eftir landshlutum
1	9. ágúst 2014	Vísitala íbúðaverðs á höfuðborgarsvæðinu
2	0. ágúst 2014	Upplýsingar um leiguverð íbúðarhúsnæðis
2	. 6. ágúst 2014	Viðskipti með atvinnuhúsnæði í júlí
2	8. ágúst 2014	Fjöldi útgefina vegabréfa
2	9. ágúst 2014	Gögn tengd áramótastöðu íbúða- og sumarhúsa uppfærð á heimasíðunni
Picture 3. E	Excerpt from Re	gisters Iceland's publication plan for 2014

Picture 3. Excerpt from Registers Iceland's publication plan for 2014

Here is a description of some of the bulletins:

The property market in the capital area and other larger municipalities.

Once a month, generally on the first Wednesday, figures are released on the number and volume of sales in the last month. These figures include both residential and other types of real estate. All legally registered property transactions are included with the exception of foreclosure sales and deed transfers that do not include a sales price.

The number of trade in sales

In conjunction with the publication of the monthly sales figures RI publishes information regarding the number of trade in sales. A trade in sale is a sale where one property is used as part of the price for another property. These trade-in sales are included in the monthly figures.

Number of legally registered residential rental contracts

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RI publishes the number of legally registered residential rental contracts. Included are all rental contracts concerning properties registered as being residential, the start date of the contract must be within a year of its legal registration to be counted.

Market turnover

Weekly on a Monday, RI publishes figures regarding the number of and volume of sales contracts in the past week. The figures include legally registered sales contracts from Friday through Thursday of the preceding week. Foreclosure sales and deed transfers that do not include a sales price are excluded.

The property price index for the capital area

A nominal property price index for the capital area is published monthly. The index is based on legally registered sales contracts registered in the RI price database. Only arm's length contracts are used. Foreclosure sales, bank sales, trade-in sales, sales between related parties and sales of incomplete properties are excluded.

Each bulletin states that everyone is free to republish the contained information as long as they reference RI.

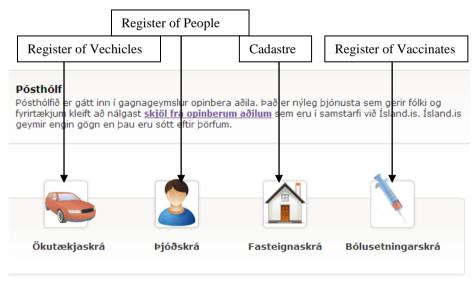
RI works on the principle that its activities and provision of information should contribute to a better quality of life in Iceland and economic growth. Potential improvements and what new information could be of the best use for the Icelandic public are continually being reviewed. There is significant traffic to the RI website www.skra.is, which also provides access to information on sales prices. Visitors can select a municipality, year of construction, type of property (houses or apartments), and number of rooms per residence and specify a range of dates. This represents a source of information on the real estate market where each individual can tailor his or her own query. This information is important for prospective buyers and sellers, as well as real estate agents, banks and investment companies.

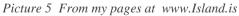
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Staður: Tímabil:	Reykjavík janúar 2013 - desember 2013				Tegund Dags:		ýli 4/2014	
				Heildarverð		Fermetraverð		
Herbergja- fjöldi	Fjöldi samninga	Flatarmál (m²)	Byggingar- ár		Staðgr.verð (millj.kr.)	Nafnverð (kr/m²)	Staðgr.verð (kr/m²)	Mörk
		109	2012	31,00	30,91	348.615	343.020	Efri mörk
2	47	89	2006	25,87	25,35	288.642	282.202	Meðaltal
		70	2003	19,50	18,90	240.947	228.650	Neðri mörk
		132	2010	41,90	41,31	346.300	335.393	Efri mörk
3	122	111	2005	31,65	31,21	283.003	278.876	Meðaltal
		90	2001	24,00	23,20	225.023	220.203	Neðri mörk
		152	2007	41,30	40,60	284.240	278.024	Efri mörk
4	88	136	2004	34,77	34,12	252.369	247.454	Meðaltal
		120	2001	27,50	27,00	217.549	213.648	Neðri mörk
		182	2010	50,50	50,47	271.084	271.084	Efri mörk
5	15	164	2004	40,05	39,46	242.681	239.059	Meðaltal
		141	2000	32,50	32,48	211.812	210.626	Neðri mörk
		145	2010	41,00	40,26	312.030	310.374	Efri mörk
Fjölbýli alls	276	119	2005	32,10	31,57	271.621	266.918	Meðaltal
		86	2002	23,90	23,42	222.868	217.275	Neðri mörk

Picture 4 Results from the RI price database

Systems have been implemented in Iceland, similar to those in the other Nordic countries to provide better services and more detailed information to property owners concerning their own real estate. Every individual can also access information about themselves stored in four different government databases; one of these is the cadastre.





4.3 Principles of what Data on Real Properties and buildings should be free of charge

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and what Data should be charged for.

The Icelandic Registers Iceland is responsible for a part of its own income through the sale of valuations and other information from the cadastre. On the face of it, it appears that this requirement is hardly compatible with granting free access to public information. However, it is possible to grant basic information for free but provide additional details on real estate, e.g. on owners' names, dates of real estate sales and mortgages, for a fee. The nature of this information is essential for organizations that can generate income from it such as banks using the information when providing mortgages. In light of this fact it is reasonable that such information, e.g. on the certificate from the Land Registry on ownership and mortgages, is consistent with data protection legislation. The pricing would deter parties from accessing the information on specific properties without good reason such as for a prospective business transaction involving the property.

5 CONCLUSIONS

The cadastre is a large and complicated system in constant development. It is costly to maintain and ensure that these systems are always secure and online. The legal requirements are also complicated. RI must adhere to laws on public governance and data protection. The modern society calls for immediate access to current property details but the protection of individual privacy must also be respected and it is important that only those with a legal right to the information gets it. Dissemination of information does not only happen through providing access to the data. Research also takes place and is published regularly. It is impossible to imagine the society without the cadastre because it contains the details of its most valuable assets its properties.

6 **REFERENCES**

Guðmundur J. Guðmundsson. "Fasteignamat á Íslandi – Frá tíundarlögum til Landskrár fasteigna", Ársskýrsla 2000, Fasteignamat ríkisins.

Gunnar F. Guðmundsson, "Afréttareign í sögu og samtíð", Ársskýrsla 2001, Fasteignamat ríkisins.

Margrét Hauksdóttir, "Fasteignaskráning á Íslandi", Árskýrsla 2004, Fasteignamat ríkisins.

Viðar Már Matthíasson, "Fasteignahugtakið", Ársskýrsla 2003, Fasteignamat ríkisins.

"Fasteignamat 2014", Þjóðskrá Íslands

Þorgeir Örlygsson. Þinglýsingar - Mistök í þinglýsingum - Réttarreglur, Reykjavík 1993.

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BIOGRAPHICAL NOTES

Margrét Hauksdóttir graduated as a lawyer from the University of Iceland in 1989 and graduated with Master degree in Business Administration (MBA) from same University 2010. Upon graduation of law degree she started work at the Ministry of Justice and worked there until 1990. Since 1989 she has been a member of various governmental committees dealing with a range of legal issues. During 1992-1993 she was employed as a trainee at the EFTA Secretariat in Geneva. Between 1994-1997 she lectured on family law at the University of Iceland. She was also a member of the Bureau of the UN/ECE WPLA 2005-2008.

In 2000 Margrét moved to Registers Iceland. In 2003 she became its Deputy Director General and in 2013 she became its Director General. She was a member of the project team responsible for establishing the centralized Cadastre Database and has chaired a number of project teams who are responsible for the reformation of cadastral practices at RI. Margrét has also been a member of a governmental workgroup which worked on a new bill on the cadastre.

CONTACT DETAILS

Ms. Margrét Hauksdóttir Registers Iceland Borgartún 21 105 Reykjavík ICELAND

 PHONE
 +354 515 5300

 FAX
 +354 515 5310

 EMAIL
 mh@skra.is

 WEBSITE
 www.skra.is

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