Department of Real Estate, Planning and Geoinformatics

# On the Property Rights in Finland

## The Point of View of Legal Cadastral Domain Model

Kirsikka Niukkanen

Aalto University

DOCTORAL DISSERTATIONS

Aalto University publication series
**DOCTORAL DISSERTATIONS** 163/2014

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**Kirsikka Niukkanen**

A doctoral dissertation completed for the degree of Doctor of Science (Technology) to be defended, with the permission of the Aalto University School of Engineering, at a public examination held at the lecture hall E of the school on 28 November 2014 at 12.

**Aalto University**
**School of Engineering**
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Aalto University publication series
**DOCTORAL DISSERTATIONS** 163/2014



ISBN 978-952-60-5915-0 (printed)
ISBN 978-952-60-5916-7 (pdf)
ISSN-L 1799-4934
ISSN 1799-4934 (printed)
ISSN 1799-4942 (pdf)
http://urn.fi/URN:ISBN:978-952-60-5916-7

Unigrafia Oy
Helsinki 2014

Finland

441 697
Printed matter

Aalto University

# Abstract

Aalto University, P.O. Box 11000, FI-00076 Aalto www.aalto.fi

**Author**
Kirsikka Niukkanen

**Name of the doctoral dissertation**
On the Property Rights in Finland - the Point of View of Legal Cadastral Domain Model

**Publisher** School of Engineering

**Unit** Department of Real Estate, Planning and Geoinformatics

**Series** Aalto University publication series DOCTORAL DISSERTATIONS 163/2014

**Field of research** Land Management

**Manuscript submitted** 8 August 2014 **Date of the defence** 28 November 2014

**Permission to publish granted (date)** 20 October 2014 **Language** English

☒ **Monograph** ☐ **Article dissertation (summary + original articles)**

**Abstract**

During the past ten years in the field of surveying and land management there has been increasing awareness of the importance of registration of property rights and exchange of cadastral data between nations. The need for information exchange has generated the need for standardized terminology and systems. In this research, focus has been laid on ISO standard approved in 2012, the Land Administration Domain Model and its possible future legal extension, the Legal Cadastral Domain Model.

The study explores the real property rights in the Finnish cadastral system. It also shows how the registration of property rights has been handled in different times. The international models, namely the Land Administration Domain Model and the Legal Cadastral Domain Model, are studied, along with their suitability for the Finnish system, and a proposal for registration of property rights in Finland is made.

In this research, the Finnish cadastral system is modelled by using object-oriented modelling. In order to create a basis for international knowledge exchange, the Finnish system is compared with the Land Administration Domain Model and the Legal Cadastral Domain Model. The model for Finland is generated from the administrative element of Land Administration Domain Model, as it this is the part of the model that is the most affected by Legal Cadastral Domain Model.

Finnish property rights are divided into private and public rights according to the categories in Legal Cadastral Domain Model and each right is individually introduced. Property to property right, person to property right, common, latent right and monetary liability as well as public advantages and public restrictions are presented.

In conclusion, this study shows that there is a need to simplify the system of property rights in Finland and also to deconstruct the concept of real property as it is defined in the legislation. These actions will help to implement the Land Administration Domain Model in Finland in the future.

**Keywords** cadastre, cadastral system, ISO 19152, Land Administration Domain Model, Legal Cadastral Domain Model, property-to-property right, common, person-to-property right, latent right, monetary liability, easement, special interest

**ISBN (printed)** 978-952-60-5915-0 **ISBN (pdf)** 978-952-60-5916-7

**ISSN-L** 1799-4934 **ISSN (printed)** 1799-4934 **ISSN (pdf)** 1799-4942

**Location of publisher** Helsinki **Location of printing** Helsinki **Year** 2014

**Pages** 176 **urn** http://urn.fi/URN:ISBN:978-952-60-5916-7

Aalto-yliopisto

**Tiivistelmä**

**Aalto-yliopisto, PL 11000, 00076 Aalto** www.aalto.fi

**Tekijä**
Kirsikka Niukkanen

**Väitöskirjan nimi**
Kiinteistöjärjestelmän käsitemallit kiinteistöön kohdistuvien oikeuksien rekisteröimisen tukena Suomessa

**Julkaisija** Insinööritieteiden korkeakoulu

**Yksikkö** Maankäyttötieteiden laitos

**Sarja** Aalto University publication series DOCTORAL DISSERTATIONS 163/2014

**Tutkimusala** Kiinteistötekniikka

**Käsikirjoituksen pvm** 08.08.2014 **Väitöspäivä** 28.11.2014

**Julkaisuluvan myöntämispäivä** 20.10.2014 **Kieli** Englanti

☒ **Monografia** ☐ **Yhdistelmäväitöskirja (yhteenveto-osa + erillisartikkelit)**

**Tiivistelmä**

Viimeisen kymmenen vuoden aikana on kiinteistötekniikan alalla herännyt kasvava kiinnostus kiinteistöön kohdistuvien oikeuksien rekisteröinnin tärkeyteen sekä kiinteistöihin liittyvän tiedon vaihdantaan kansainvälisellä tasolla. Tämä tiedonvaihdannan kansainvälistymisen tarve on puolestaan luonut tarpeen yhtenäistää hyvin hajanaisia ja usein kansalliseen lainsäädäntöön perustuvia järjestelmiä ja käsitemalleja.

Tässä tutkimuksessa keskitytään kysymyksiin, minkälaisia kiinteistöön kohdistuvia oikeuksia suomalaisessa kiinteistöjärejstelmässä on ja kuinka kiinteistöön kohdistuvia oikeuksia on käsitelty ja rekisteröity eri aikakausina. Näitä kysymyksiä tutkimuksessa tarkastellaan käyttäen viitekehyksenä vuonna 2012 hyväksyttyä ISO-standardia, maanhallinnan käsitemallia (ISO 19152) ja sen tulevaisuudessa toteutettavaa juridista laajennusosaa, kiinteistöjärjestelmän käsitemallia. Samalla tutkimuksessa selvitetään, kuinka nämä kansainväliset käsitemallit soveltuvat kuvaamaan suomalaista katasterijärjestelmää.

Tutkimuksessa suomalainen katasterijärjestelmä on mallinnettu object-oriented-modeling -mallinnuskieltä käyttäen. Kiinteistöön kohdistuvat oikeudet on tällöin jaettu yksityisiin ja julkisiin oikeuksiin kiinteistöjärjestelmän käsitemallin luokitusta käyttäen. Luokat ovat kiinteistö-kiinteistöoikeus, yhteinen, henkilö-kiinteistöoikeus, piilevä oikeus, rahallinen vastuu sekä julkisen oikeuden luoma etuus ja julkisen oikeuden luoma rajoite.

Tämän jälkeen suomalaista järjestelmämallia on verrattu maanhallinnan ja kiinteistöjärjestelmän käsitemalleihin, erityisesti maanhallinnan käsitemallin hallinnollisista asioista koostuvaan tietopakettiin, sillä mallin juridinen laajennus tulee vaikuttamaan eniten siihen osaan mallia.

Lopputuloksena tutkimus osoittaa, että maanhallinnan käsitemallin käyttöönottaminen Suomessa helpottuu, mikäli kiinteistöön kohdistuvien oikeuksien lukuisia eri lajeja pystytyään vähentämään ja mikäli suomalainen kiinteistön käsite puretaan osiin niin, että eräitä kiinteistöön kohdistuvia oikeuksia ei enää lueta kuuluvaksi kiinteistön ulottuvuuteen.

**Avainsanat** katasteri, katasterijärjestelmä, ISO 19152, maanhallinnan käsitemalli, kiinteistöjärjestelmän käsitemalli, kiinteistöön kohdistuva oikeus, kiinteistö-kiinteistöoikeus, yhteinen, henkilö-kiinteistöoikeus, piilevä oikeus, rahallinen vastuu, rasite, erityinen etuus

**ISBN (painettu)** 978-952-60-5915-0 **ISBN (pdf)** 978-952-60-5916-7

**ISSN-L** 1799-4934 **ISSN (painettu)** 1799-4934 **ISSN (pdf)** 1799-4942

**Julkaisupaikka** Helsinki **Painopaikka** Helsinki **Vuosi** 2014

**Sivumäärä** 176 **urn** http://urn.fi/URN:ISBN:978-952-60-5916-7

# Acknowledgements

This research is a result of four years of learning, writing, and understanding, learning and writing again. The journey from the beginning of my studies to this point has not been straight; instead it has meandered between languages and also focuses of the research.

I am grateful for all the support I have received during my project. Thanks to Ministry of Agriculture and Forestry, the National Land Survey of Finland and especially Tuomas Lukkarinen, Maanmittausalan edistämissäätiö and the Aalto University School of Engineering.

The pre-examiners gave me excellent feedback, ideas and comments for this research. Thank you, Professor Jaap Zevenbergen and Professor Markus Holopainen. I want to direct my special acknowledgement to Jesper Paasch, whose research inspired me to tackle the issue of property rights and who agreed to act as my opponent.

From the very beginning I have had the privilege to work with my supervisor, Professor Arvo Vitikainen, who has always been encouraging and positive, also through the not-so-productive periods. I want to thank you for all the support you have given to me and also for the belief you have had in me.

What would creative work be without breaks from the daily grind? Karin, Pauliina, Juhana, Saija (a.k.a Team Arvo), and also my other dear colleagues, especially Ari: thank you for every discussion, whether or not it has been related to work. You have kept my mind fresh and open for new ideas. I would like to thank Marina Johansson for making the finishing touch to the layout for this thesis.

In the end, what would a person be without people behind her? Äiti, isi, Tomi-Pekka and Janne, thank you for believing in me. And finally, thank you Ville, for loving and being there for me.

Helsinki, 21 October 2014
Kirsikka Niukkanen

# Contents

# List of Abbreviations and Legislation

| | |
|---|---|
| BLC | Basic Land Consolidation |
| ELY center | Centre for Economic Development, Transport and the Environment |
| EU | European Union |
| EULIS | European Land Information Service |
| FIG | International Federation of Surveyors |
| GP | Government Proposal |
| INSPIRE | Infrastructure for Spatial Information in the European Community |
| ISO | International Organization for Standardization |
| LADM | Land administration domain model |
| LCDM | Legal cadastral domain model |
| NLS | National Land Survey of Finland |
| PRC | Population Register Centre |
| SC | Supreme Court |
| UML | Unified Modeling Language |

Adjoining Properties Act 26/1920 (APA 26/1920)

Act on Basic Land Consolidations in Inari, Utsjoki and Enontekiö 157/1925

Act on Boundaries in Water 31/1902 (ABW 31/1902)

Act on Burial 457/2003

Act on Business Tenancy 482/1995

Act on Cadastre 392/1985 (CA 392/1985)

Act on Changing the Parcels into Independent Real Properties 31.12.1926

Act on Claiming Fishing Crofts 16/1924

Act on Common Areas 758/1989 (ACA 758/1989)

Act on Common Areas and Interests 204/1940, repealed

Act on Common Forests 109/2003 (ACF 109/2003)

Act on Detailed Plan 145/1931, repealed

Act on Financing of Sustainable Forestry 1094/1996, repealed

Act on Financing of Sustainable Forestry 544/2007

Act on Expiration of Common Roads, Main Ditches, and Similar Areas, as Common Areas 983/1976 (OjaL 983/1976)

Act on Land Division 82/1916 (LDA 82/1916)

Act on Land Division, Plot Measuring and Registering Real Properties in Urban Areas 232/1931, repealed

Act on Land Lease 258/1966

Act on Pre-emption 608/1977

Act on Private Roads 358/1962 (APR 358/1962)

Act on Promulgamation of the Act of Public Roads 244/1954, repealed

Act on Promulgamation of the Land Code 541/1995

Act on Property Division in Planning Areas 101/1960, repealed

Act on Public Roads 243/1954, repealed

Act on Rearranging Leased Land in Urban Areas 120/1936

Act on Repealing of Certain Easements 449/2000

Act on Right to Public Water Areas 204/1966

Act on Structural Subsides for Reindeer Farming and Natural Source of Livelihood 986/2011

Act on Tenancy 481/1995

Antiquities Act 295/1963

Aviation Act 1194/2009

Building Code 2/1734, partly repealed

Cross-country Traffic Act 1710/1995 (CTA 1710/1995)

Decree on Basic Land Consolidation 1775

Decree on Cadastre 970/1996 (CD 970/1996)

Decree on Cadastre 481/1985, repealed

Decree on Forming Separate Reliction Areas to Independent Homesteads 28/1911, repealed

Decree on Dividing Real Properties 1864, repealed

Decree on Dividing Real Properties 1883, repealed

Decree on Dividing Real Properties 1895, repealed

Decree on land division, plot measuring and registering real properties in urban areas 123/1936, repealed

Decree on Title and Mortgage Register 960/1996

Decree on Subdivision 407/1952, repealed

Directive 2007/2/EC of the European Parliament and of the Council of 14 March 2007 establishing an Infrastructure for Spatial Information in the European Community

Environmental Protection Act 86/2000

Expropriation Act 603/1977 (EA 603/1977)

Fishing Act 286/1982 (FA 286/1982)

Highways Act 503/2005 (HA 503/2005)

Hunting Act 615/1993

King Christopher's Common Law 1442

Land Code 1/1734 (LC 1/1734), repealed

Land Code 540/1995 (LC 540/1995)

Land Extraction Act 555/1981

Land Use and Building Act 132/1999 (LUBA 132/1999)

Land Use and Building Decree 895/1999 (LUBD 895/1999)

Magnus Eriksson's Landslag 1347

Mining Act 621/2011 (MA 621/2011)

Nature Conservation Act 1096/1996

Nature Conservation Decree 160/1997

Nuclear Energy Decree 161/1988

Outdoor Recreation Act 606/1973 (ORA 606/1973)

Railways Act 110/2007

Real Property Formation Act 554/1995 (RPFA 554/1995)

Regulations for County Bookkeepers 1662

Regulations for District Registrars 1689

Regulations for the Heads of Provincial Cadastral Offices 1812

Regulations on Compiling the Land Book and Carrying out Archive Research 1897

Regulation on Surveying, Institutions for Land Division and Taxation and Stabilizing Measurements for Length, Volume and Weight 1848 (RS 1848)

Subdivision Act 604/1951 (SA 604/1951), repealed

Water Act 587/2011 (WA 587/2011)

Water Act 264/1961 (WA 264/1961), repealed

# 1 Introduction

In this chapter I will give an overview of the research topic and short descriptions of the central terms related to the research. Also, the research problem as well as research questions are set and the methods, materials and limitations of the research are given. Directive 2007/2/EC of the European Parliament and of the Council of 14 March 2007 establishing an Infrastructure for Spatial Information in the European Community (INSPIRE) created the first step for unifying spatial data infrastructure in European Union (EU) Member States. During the past ten years, there has been increasing awareness of the importance of registration of property rights and exchange of cadastral data between nations in the field of surveying and land management. Since the relationship between man and land is seen as the core theory in this research, the different possible relationships are introduced. After that I will discuss concepts related to cadastral systems and land recording. The new International Organization for Standardization (ISO) standard number 19152 for land administration is also introduced. A real property has its own special features as an object of rights and especially as an object of ownership right. I will shortly introduce these special features, and discuss about the difficulties in defining real property and ownership in national and international context. I will then move on to a national level of definitions and describe the Finnish concept of real property in terms of national legislation and literature. Property rights are introduced in this chapter only in very general manner.

## 1.1 The relationship between man and land

In order to use land in an organised and sustainable way, it is necessary to define the rights between man and land. These rights may define who is allowed to use the land and how it can be used, for example. The rights may belong to a natural or legal person and they may be ownership rights or other types of rights, such as use rights. The rights may allow one or more persons to use the land for specific purposes, while it prevents other people from doing so. The rights are structured according to legislation, but they also have a historical background. These rights can be found in every western cadastral system. The regulation of land use is essential; otherwise the situation might be

that everyone uses the land as much for their own interests as they possibly can[1]. (Mattsson 2003, p. 23-24)

The rights define the relationship between man and land. There are three theoretical relationships which are presented in Figure 1.1 with help of subject and object. This figure presents who is the subject, in other words the right holder. It also presents the object of the right that is some restricted area. It also presents the right; what the relationship between the subject and the object is like, and what the right holder is allowed to do or restricted from doing. (Mattsson 2006, p. 3; Vitikainen 2009, p. 7)

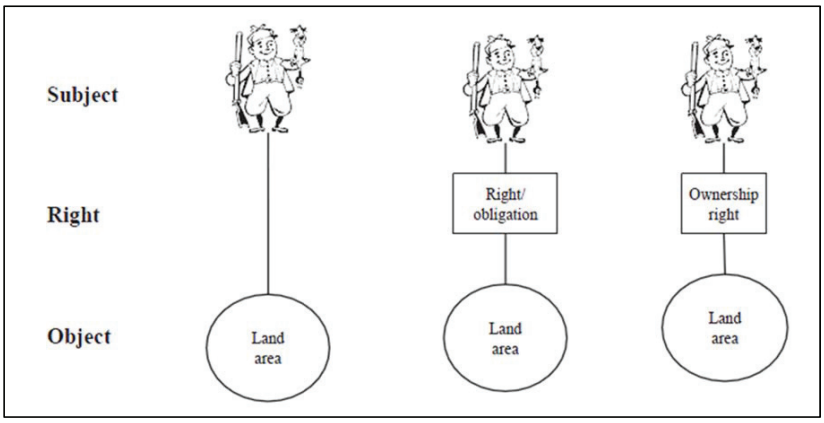


**Figure 1.1** The three theoretical connections between man and land. (Mattsson 2006, p. 3)

If there is no right between subject and object but the connection is direct, it is a question of open access. Open access may cause overuse of land and water resources and due to this, a decrease in profitability. This is the reason why land use should be regulated through rights, restrictions and obligations. The direct connection is, however, very rare and might exist for example in the open sea. (Paasch 2005, p. 120; Vitikainen 2009, p. 6-7)

The second option, connection through right or obligation, is normally seen in areas where the value of the land is low. This type of connection may also be found in countries or areas where there are customary rights. It is also worth noting that giving the rights and restrictions is not necessarily bound by ownership right, for example the state does not own the economic zones in the open sea, but the use of these areas may still be regulated by contracts. (Paasch 2005, p. 120; Vitikainen 2009, p. 6-7)

The third option is the norm in countries where land is privately owned, so the connection is created through ownership right. (Paasch 2005, p. 120; Vitikainen 2009, p. 6-7)

The subject in Figure 1.1 is the right holder. It may be a natural person or a company, municipality or some other governmental organisation, such as

1 This situation is known as "The Tragedy of the Commons" introduced by Hardin in 1968. (See Hardin, G. 1968: The Tragedy of the Commons in Science 162:124. Pp. 3-8)

a ministry.It may also be a co-operation or community or some defined or undefined group, or even several groups together. There are numerous variations in the list of subjects and they may vary from country to country. However, the common factor between these subjects is that they may be identified by biometric identification. (Lemmen & van Oosterom 2006; van Oosterom et al. 2004, p. 182)

Depending on the national system, the rights in Figure 1.1 also vary from country to country. The right may be ownership right as formal ownership, but also other types of land tenures, such as customary right types, indigenous right, possession, tenancy, landhold, freehold or long lease. In some countries the state ownership is separated from the formal ownership. Also the right may be mortgage, usufruct or restrictions related to object or subject. It should also be noted that the right may be informal or even unknown, but may also be lease, use right, lien, everyman's right[2], etc. (Lemmen & van Oosterom 2006; van Oosterom et al. 2004, p. 182; Vitikainen 2009, p. 32)

The object in Figure 1.1 is usually considered to be an area of land, a parcel. In addition to this, the object may be an apartment or a building, or even a spatial unit. The common factor for the different objects is that they may be presented as single points, lines or polygons either with low or high geometric accuracy. (Lemmen & van Oosterom 2006; van Oosterom et al. 2004, p. 181) In other words, the object is the land or water area that is used by the subject in a way the right permits. (Vitikainen 2009, p. 32)

In order to keep the connection between subject and object dynamic, the rights need to be alterative. The possibility of altering rights creates a need for secured rights, but in order to have secured rights, we must also know what is the subject and object of the right. This creates the basic need for a systematised land recording system which must be reliable and up to date. (Mattsson 2013)

## 1.2 Land-related rights

### 1.2.1 Classification of property rights

There are different ways to examine property rights, but the point of view used in this research is the one introduced by Paasch (2012a, p. 34) where he classifies the property rights as follows: ownership right, common, property-to-property right, person to property right, latent right and monetary liability (see section 1.5.5 "Legal Cadastral Domain Model"). When talking about ownership right and rights which benefit or restrict it, it is obvious that the ownership right is the core right. There are certain characteristics for each right type detected by Paasch (2008, p. 123-127) and Paasch (2011, p. 99-108) which are presented below.

[2] Everyman's right is a tradition in Finnish legislation which allows everyone to access land and water areas. (see e.g. ME 2012)

The ownership right creates the link between man and a certain area of land or water and it is a right to be executed in order to own a real property. There may be one or several holders of the ownership right focusing on the same object. This right depends on national legislation. The definition of ownership right is "Right to own real property according to legislation" (Paasch 2011, p. 105).

Common[3] refers to a connection between two or more real properties. The subjects for this right are two or more real properties and the object is an area owned by the subject properties. According to Paasch (2008, p. 124), this right is transferred together with a real property when the property is transferred[4]. Although there are similarities between common and ownership right, they differ from each other by the subject of the right. As the ownership right is executed by a person (legal person, group, municipality, etc.), the common is executed by real properties. (Paasch 2008, p. 124; Paasch 2011, p. 100) The definition of common is "Real property to land relation executed in land legally attached to two or more real properties. Owners of the participating real properties execute co-ownership rights in the land at issue". (Paasch 2011, p. 100)

A property-to-property right[5] is a right connecting two real properties. It is a right which is executed by the owner of a real property in another real property and may be executed over the whole real property or just a part of it. This right is transferred together with the real property when the property is transferred. The definition of property-to-property right is "Right executed by the owner of a real property in another real property, due to his ownership". (Paasch 2011, p. 108; Paasch 2008, p. 124-125)

Person-to-property right[6] is a connection between a subject who is not the owner of the real property, and a real property. It is executed by the person in a real property that he does not own. The right may be executed to the whole real property or a part of it and transferred with the real property when the property is transferred. The definition of person-to-property right is "Right executed by a person to use, harvest the fruits/material of, rent or lease the real property in whole or in part, including the claim against a person". (Paasch 2011, p. 107; Paasch 2008, p. 125)

A latent right is a connection between the latent right and a real property. It is a right which is not yet executed on or by a real property. The right is normally transferred with the real property when the property is transferred. Special to this type of right is that it will be classified as a different type of right (common, property-to-property right, person-to-property right, public regulation or public advantage) when the right is executed, depending on its characteristics. The definition of latent right is "Right not yet executed on a real property". (Paasch 2011, p. 102; Paasch 2008, p. 126)

[3] In Paasch 2008 the term "Common right" is used. Later on, the right is called "Common" (see Paasch 2011, p. 100; Paasch 2012b, p. 34). In this study the term "Common" is used.

[4] Later on, I will show that the practice in Finland varies and has varied throughout the history, see Chapter 4.

[5] The term "Property-to-property right" was introduced by Paasch (2011) to replace the term "Real property right". In this study the term "Property-to-property right" is used.

[6] The term "Person-to-property right" was introduced by Paasch (2011) to replace the term "Personal right". In this study the term "Person-to-property right" is used.

A monetary liability[7] describes the connection between a financial right that a creditor has and a real property. The creditor may be a person or another real property and the right is subject to legislation and when executed, the right is transferred to property-to-property right or person-to-property right, depending on the type of creditor. The right is not usually indefinite but lasts until a debt or another duty that the right secures is fulfilled. The monetary liability is also a latent right used as a financial security for payment. Because the real property acts as a security for payment, it may be a subject for forced sale. The definition of monetary liability is "A latent, financial security for payment". (Paasch 2011, p. 104; Paasch 2008, p. 126-127)

### 1.2.2 Ownership right

Rights are seen as a central concept in the subject-right-object model of relationship between man and land and more precisely, ownership right as the core right. That is why a further review of ownership right is needed. The concept of ownership is often explained by "bundle of rights" or "bundle of sticks" (Figure 1.2), where different rights may have different subjects and the rights may be overlapping and transferred further, regardless of the other rights in the bundle (Alchain & Demsetz 1973, p. 17-19; Lemmen et al. 2003; Lemmen & van Oosterom 2006, p. 1). The term "bundle of rights" has been particularly criticised because it seems to hide the fact that there are governmental or state regulations interfering with the "absolute ownership right" (see e.g. Klein & Robinson 2011).

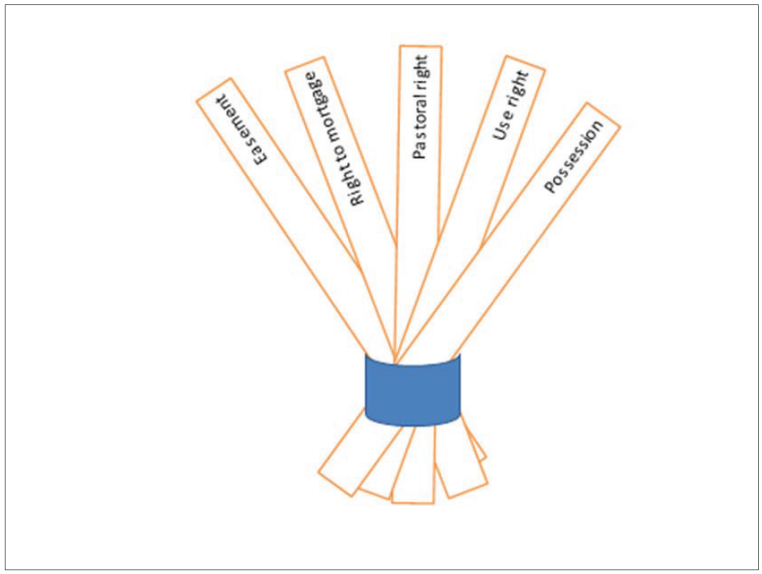


**Figure 1.2**. An example of the bundle of rights (based on Lemmen et al. 2003).

[7] The term "Monetary liablity" was introduced by Paasch (2011) to replace the term "Lien". In this study the term "Monetary liability" is used.

It seems that the "bundle of rights" should be considered as a concept to describe all the benefiting and encumbering factors regarding ownership. As e.g. Klein and Robinson (2011) and Paasch (2012b, p. 26) note, ownership does not consist only of rights to do something. The government and the legal system impose different kinds of responsibilities and restrictions to regulate land use. Another term, the "attributes of ownership" have been used to describe the entity of different rights that the owner of the land is entitled to (see e.g. Ambaye 2013, p. 31; Johnston 1999, p. 53) and actually seems to describe the ownership more appositely.

The ownership right for land may be defined as a legally natural right, the content and boundaries of which are created through positive right. It is a general word that is used to define the legal status of the land owner and it is dynamic in relation to time, subject and object. If there are no restrictions set by law, authorities or other special quarter, the holder of the ownership right may practise full power over the object of the right. (Kartio 2002, p. 234; Määttä 1999, p. 510) Kartio (2002, p. 235) divides the ownership right into three basic elements: right of possession, competence and dynamic protection. Paasch (2011, p. 22) mentions that ownership is a combination of three rights: right to use, manage and exclude, right to added value and right of transfer.

According to Epstein (2011, p. 229-230), Roman and common law took the *ad coelum* rule "for whoever owns the soil, it is theirs up to Heaven and down to the Depths of the Earth". This rule has certain obstacles when determining some mining or air rights, but the core conception is that according to Epstein (2011, p. 229-230) there is no reason to allow large parts of the physical universe to remain without an owner. If the surface owner could only own the surface, the property would literally be in two dimensions (Epstein 2011, p. 229-230).

## 1.3 Real property as object of rights

### 1.3.1 What makes real property so special?

Mattsson (2003, p. 25) states that, eventually, a real property is what the law defines it to be. It is challenging enough to find a proper definition for real property even in the national context, let alone internationally (see also Navratil 2002, p. 3-4). However, when looking at the national concepts of real property, it can be noted that it is the object of certain rights which defines how the property may be used and by whom. When examining real property from the land administration's perspective, it can be noted that the term "land" includes not only the land, but all things on it, attached to it and under the surface of the Earth. (Williamson et. al 2010, p. 5)

Real property is defined as follows: "Land and anything growing on, attached to, or erected on it, excluding anything that may be severed without injury to the land. Real property can be either corporeal (soil and buildings) or

incorporeal (easements)" (Black, H. 1999, p. ). The International Valuation Standards define real property as "[a]ll rights, interests and benefits related to the ownership of real estate" (IVS 2011, p. 12). Real estate is defined as "Land and all things that are natural part of the land, e.g. trees, minerals and things that have been attached to the land, e.g. buildings and site improvements and all permanent building attachments, e.g. mechanical and electrical plant providing services to a building, that are both below and above the ground" (IVS 2011, p. 12). Frank (2004, p.3) mentions that "the term real estate is prototypically used to describe land parcels, buildings with the land they are sitting on, but also flats when they are separately owned, etc."

When defining a real property, the differences within ownership and use rights should also be discussed. Differences occur within these rights even in the same types of cadastral systems. But since there is land all over the world, similarities may also be found in the special features related to land, which separate land from other goods. The amount of land is limited and it cannot be produced as a mass product. Of course there might be some "creating of land" by filling in the sea, but in this case the land also needs to be transported somehow to the place or lifted from the bottom of the sea. The life cycle of land is everlasting and it is considered to maintain its value quite well. There are no production costs for land since it cannot be produced. Land is essential for all actions and is not replaceable. Land is in a certain location and cannot be moved to another place, which makes it easily affected by surrounding areas, be it from a positive or negative point of view. Every piece of land is unique and differs from other areas, at least by location. Land is sustainable and it does not have an expiry date. However, it may be polluted but still cleaned and used. Owning land is often not only a neutral relationship between man and land, but it may also be of sentimental value. Land markets are local and price levels may vary significantly from place to place. The land markets are regulated by public actions, for example by planning. (Virtanen 2004, p. 5-6)

### 1.3.2 Movable and immovable property

Property law divides properties into immovable and movable objects. These objects can be defined overall as limited tangible objects that humans can have power to dispose of. Immovable property can be further divided into real property units and other property units mentioned in cadastral legislation. This kind of division is justified because real property units are direct objects of land ownership, whereas the ownership of other property units is based on real property ownership. However, it should be noted that the definitions of real property and immovable property do not fully correspond to each other. (GP 227/1994; Kartio 2002, p. 225-227; Kartio 1996 p. 105-108)

### 1.3.3 Constituent parts and appurtenances of real property

From the point of view of law of property, real property is composed of its constituent parts and appurtenances. The constituent parts are not independent parts of a property, so from the legal point of view they are not independent properties. The appurtenances, however, are legally independent properties but they serve another property's economic function. The constituent parts of real property are land and water areas with their ground, such as loose soil; objects that are fixed to the ground and that serve the permanent use of real property (including water pipes, telephone lines); drainage systems; any products on the real property until they have been removed; yield; and buildings which belong to the land owner. (Hyvönen 1982, p. 6; Vitikainen 2009, p. 5)

The following may act as appurtenances: shares of joint land and water areas; goods taken from land and goods reserved for the needs of real property; and objects that are needed for the use of real property. Ladders, keys etc. and also deeds and other documents concerning the real property may be seen as appurtenances. The shares of joint areas may also be seen as a constituent part of a real property. Vitikainen (2009, p. 5) defines them as appurtenances whereas Hyvönen (1998, p. 7) suggests that shares of joint areas, easements and special interests are sometimes seen as constituent parts of real property but most commonly they are seen as appurtenances.

## 1.4 Cadastral system as the data bank of real property information

### 1.4.1 Cadastre

Normally a cadastre is understood to be a parcel-based and up-to-date land information system containing a record of interests in land (e.g. rights, restrictions and responsibilities). It usually includes a geometric description of land parcels linked to other records describing the nature of the interests, ownership or control of those interests, and often the value of the parcel and its improvements (Figure 1.3). It may be established for fiscal purposes (valuation and taxation), legal purposes (conveyancing), to assist in the management of land and land-use planning (planning and administration), and it enables sustainable development and environmental improvement. (FIG 1995)

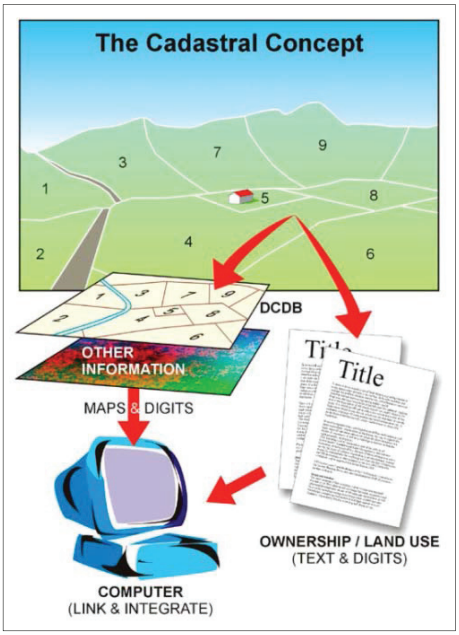


**Figure 1.3.** The Cadastral Concept. (FIG 2014, p. 3)

The formal basis for managing land is either called a land registration or a cadastral system. Both such systems are processes for recording, and in some countries guaranteeing, information about the ownership of land. The purpose of a land registration system is to provide a safe and certain foundation for the acquisition, enjoyment and disposal of rights to land, each right being an abstract entity to which some person or group of persons is entitled. It is a process that should create security not only for land owners and their partners but also for national and international investors and money lenders, for traders and dealers, and for governments. Significant levels of inward investment will only be attracted if there are secure land and property rights – the less the security, the higher the risk and hence the less likelihood of support for sustainable development. (Dale, P. 1997, p. 1622-1623)

### 1.4.2 Cadastral information

The system of cadastral information answers questions as to where and how much (the questions answered by the cadastre) as well as who and how (the questions answered by the land register) (see Figure 1.4). The land register includes information on the subject's name and other collected data. It is official and based on title or deed registration. The purpose of recording rights is to secure the rights and also provide use rights, such as ownership right or freehold. The cadastre includes information on identified cadastral parcels. The same identifier is used in the land register in order to gain the whole legal situation of the real property. (Henssen 1995, p. 5-8)

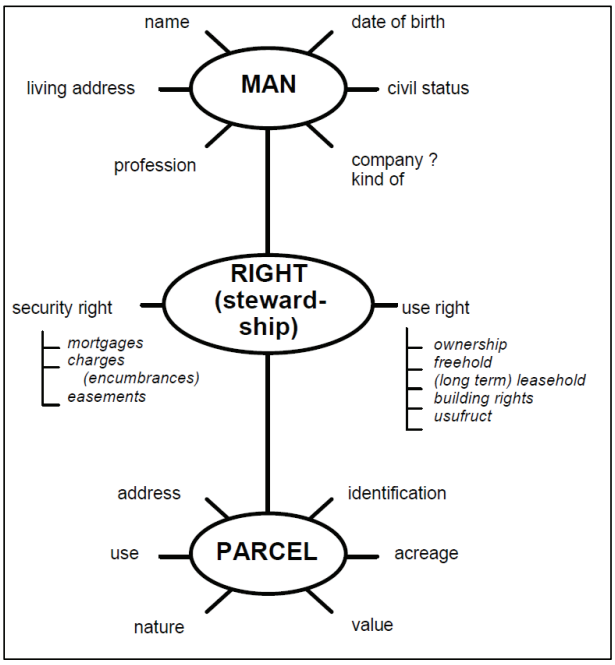


**Figure 1.4**. Model of cadastral information (Henssen 1995, p. 6)

The cadastral infrastructure includes a unique identification of the land parcels deriving from the cadastral surveys. The cadastral identification is then seen as the core component of any land information system. It is argued that within the next ten years such land information systems will form an integral part of a model of our man-made and natural environment. The model will build on the core cadastral and topographic data sets which will be completed on a country-wide basis and kept up to date. The focus will be on providing land information to the mass market to support the land market, financial and business sectors, environmental management, land administration, urban systems and community information systems (Williamson, 1999).

## 1.5 Background to the study

Over time there have been several attempts to internationally standardise and regulate land administration systems, property rights and cadastral information. The EU-driven projects are the European Land Information Service (EULIS) and Infrastructure for Spatial Information in the European Community (INSPIRE). The ISO Standard 19152 Land Administration Domain Model (LADM) was originally an initiative of the International Federation of Surveyors (FIG). Figure 1.5 illustrates some of the projects initiated over the past 20 years.

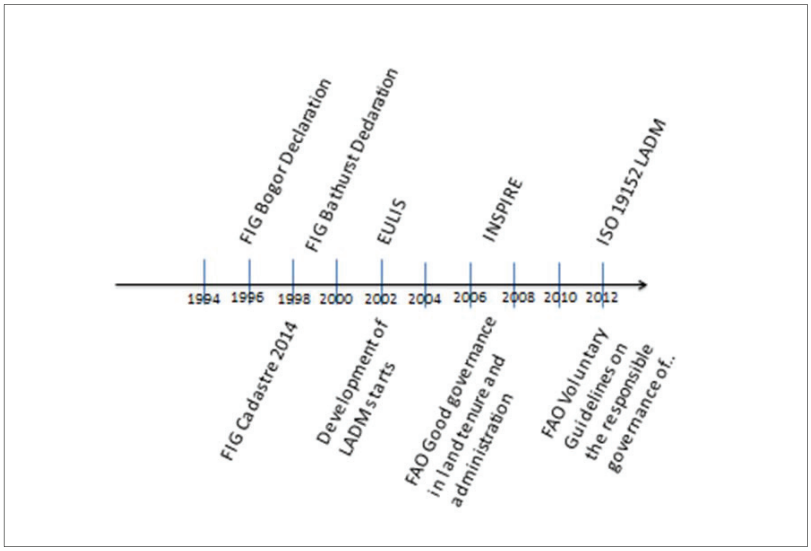


**Figure 1.5** Standardization and guidelines concerning land administration and registration.

The FIG Bogor Declaration was introduced in 1996 and based on the meeting of cadastral experts organised in co-operation between the United Nations (UN) and FIG. The main objective for this meeting was to recognise the need for cadastral systems, especially in Asia and to make recommendations on cadastral and land management issues. The declaration states that although all countries have individual needs for a cadastral system, countries at the same stage of development have some similarities in their needs. Also, in order to be functional system, the cadastre needs effective and efficient land markets and efficient, secure and affordable actions for the adjudication of land rights, land transfer and dynamics. (FIG 1996)

The FIG Bathurst Declaration on land administration for sustainable development was introduced in 1999. (FIG 1999) Although these declarations, statements or recommendations are not official in nature, they have been creating an atmosphere of developing land administration in a particular direction and have also acted as input to the development work of LADM (Lemmen 2012, p. 56).

### 1.5.1 Cadastre 2014

In 1998, a FIG working group published a vision for future cadastral systems, “Cadastre 2014” by reviewing current cadastral systems (Figure 1.6). The report is based on questionnaires made for cadastral experts in different countries. There were four studied aspects: legal and organisational characteristics, levels of planning and control, aspects of multi-purpose cadastre, and responsibilities of public and private sectors. Based on the

results of this questionnaire, the strengths and weaknesses of different cadastral systems were reviewed. After the revision of existing cadastres, a new questionnaire concerning reforms and trends of cadastral systems developed. The elements of this questionnaire were ongoing reforms and their purposes, as well as technical, legal and organisational trends. The cost recovery aspect was also studied. (Kaufmann & Steudler 1998, p. 1-11)


**Figure 1.6.** Cadastre 2014 is a vision for a future cadastral system (Kaufmann & Steudler, 1998)

Based on these studies, a vision for Cadastre 2014 was formed. Cadastre 2014 is a systematically organised public inventory of data that concerns all legal land objects. The objects have unique identifiers and are defined in public or private law. Cadastre 2014 includes descriptive data concerning each legal land object, such as an object's nature and legal rights and restrictions. It is an integrated land recording system, which includes the traditional parts of a cadastral system, cadastre and record of rights and restrictions. Cadastre 2014 provides answers to the questions where, how much, who and how. (Kaufmann & Steudler 1998, p. 15)

The boundaries of cadastral units shall be defined either based on private or public law. Kaufmann and Steudler (1998, p. 17) discovered that even though cadastral registration has very high legal security (more than 100 %), the situation even might be opposite concerning the public law restrictions. Cadastre 2014 also gives the public law restriction registration full legal security (see Figure 1.7)

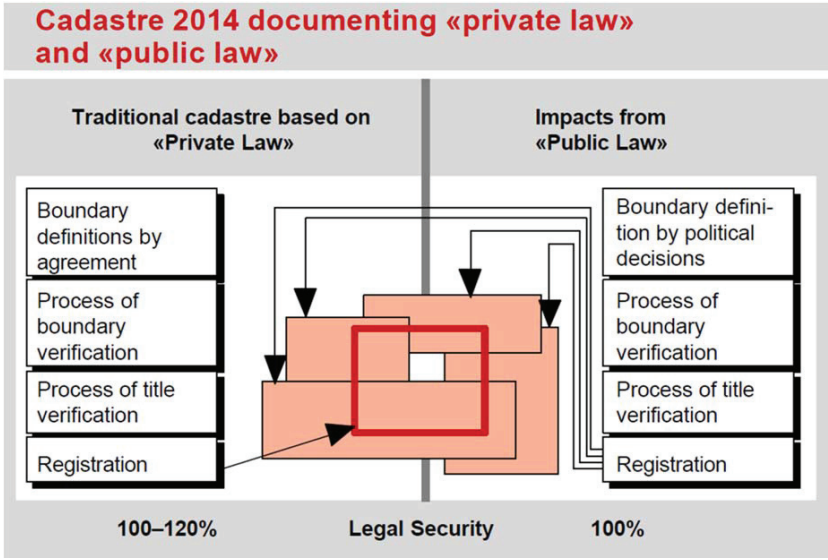


**Figure 1.7.** Cadastre 2014 includes all the private and public rights and restrictions. (Kaufmann & Steudler 1998, p. 18)

It should be noted that in addition to private and public rights and restrictions, a third group of land objects might occur. In countries where traditional and customary rights, e.g. tribal rights, exist, the rights are not often documented or registered to gain legal security. Cadastre 2014 shall also correct this lack and the customary rights will receive legal security. (Kaufmann & Steudler 1998, p. 18)

The features of Cadastre 2014 can be described by using the following six statements:

1. *"Cadastre will show the complete legal situation of land, including public rights and restrictions!"*
2. *"The separation between 'maps' and 'registers' will be abolished!"*
3. *"The cadastral mapping will be dead! Long live modeling!"*
4. *"´Paper and pencil - cadastre´ will have gone!"*
5. *"Cadastre 2014 will be highly privatized! Public and private sector are working closely together!"*
6. *"Cadastre 2014 will be costly recovering!"*

(Kaufmann & Steudler 1998, p. 15-25)

The statements of Cadastre 2014 have been evaluated and put into context in FIG publication No. 61 by reflecting it to the present day's development trends (FIG 2014). A more global (not only the western) view is considerated and core issues of development recognized. Rapid urbanization, food security, climate change and informal economy are seen as trends and also challenges for land administration (FIG 2014, p. 5-7).

The six statements are still seen as important principles towards sustainable land management. The first statement is revised from the perspective that the

government-owned land is not inventoried and managed well and therefore is still seen as viral statement. The same applies for the second statement about linking maps and registers. The importance of statements numbers 3 and 4 is recognized especially in the context of Land Administration Domain Model. The need for digital systems is obvious and it is also stated that when trying to achieve systems which are easy to use and cheap to put into operation, the technical systems for cadastral modelling is essential. The statements numbers 5 and 6 concerning organizational matters about the public and private sector working together and cadastre being cost-recovering will be in view of global agenda (FIG 2014, p. 8)

### 1.5.2 EULIS project

A step towards internationally comparable cadastres was taken within the European Land Information Service (EULIS) project. This service provides cadastral information about its member countries[8] and aims at harmonized terminology. The EULIS Glossary has been developed for not only to harmonize the terms but also to provide understanding of the terms. (EULIS 2012; Tiainen 2007, p. 38) EULIS service is not regulated by statutes or directives, but the EU is aware of it and encourages its member countries to abide by the service. The service is provided to share knowledge about national registers, legal situations, activities and information services and it is considered useful for professionals working in banks, authorities, conveyances, property developers, etc. (Gustafsson & Drewniak 2008)

The EULIS Glossary consists of 50 terms and their definitions. Multilingual services are also provided in the form of a translation service. EULIS terms concern real property registration, different types of ownership and its restrictions and unregistered interests, for example. The glossary is built up so that it first shows the EULIS concept and definition for a term, then the national synonym for it and its description. (Gustafsson & Drewniak 2008) However, as Paasch (2008, p. 107) reminds, the information in the EULIS initiative is not fully standardised and the point of view is more on mortgage and conveyance, rather than land administration.

### 1.5.3 INSPIRE

An EU Directive 2007/2/EC establishing Infrastructure for Spatial Information in the European Community (INSPIRE) came into force on 15 May 2007. The goal for INSPIRE is to create a unified infrastructure system within the EU Member States and it is focused on the geographical content of cadastral data. (EC 2012)

[8] At the end of 2012 the full member countries were Austria, Ireland, Lithuania, The Netherlands, Spain and Sweden and member countries not or only partly connected were England and Wales, Finland and Scotland (EULIS 2012).

INSPIRE obligates EU Member States to provide cadastral information in standardised data form. The core of INSPIRE are cadastral parcels and basic property units. The information provided on a cadastral parcel according to INSPIRE includes the INSPIRE identifier, a reference to the national cadastre, the date of registration, geometry and the reference point with a label. Information provided on a basic property unit includes the INSPIRE identifier, a reference to the national cadastre, the area and the date of registration. (INSPIRE 2009, p. VII; Myllymäki, T. & Pykälä, T. 2011, p. 6)

### 1.5.4 ISO 19152 Land Administration Domain Model

The actual development work for the standard ISO 19152 Land Administration Domain Model started in 2002 and took ten years. It was approved as an official ISO standard on 1 November 2012 and was published on 1 December 2012 (ISO 19152). (see van Oosterom et al. 2013) The need for standardised land administration arose years ago and there have been several attempts to create a systematised land administration process to secure the land rights, especially in developing countries. (UN-HABITAT 2008; UNECE 1996)

Lemmen (2012) introduced his doctoral thesis "Domain Model for Land Administration" in 2012 at the University of Delft. The development of the domain model was made through three pre-models that were evaluated and improved based on the evaluation. Finally, the model was tested in field in Cyprus, Honduras and Portugal. The goal for this work was to develop a domain model for land administration systems that can make the communication within land administration easy at the national and international level and also to create a systematised model for cheaper and more efficient maintenance of land administration systems (Figure 1.8). (Lemmen 2012, p. 1-2)

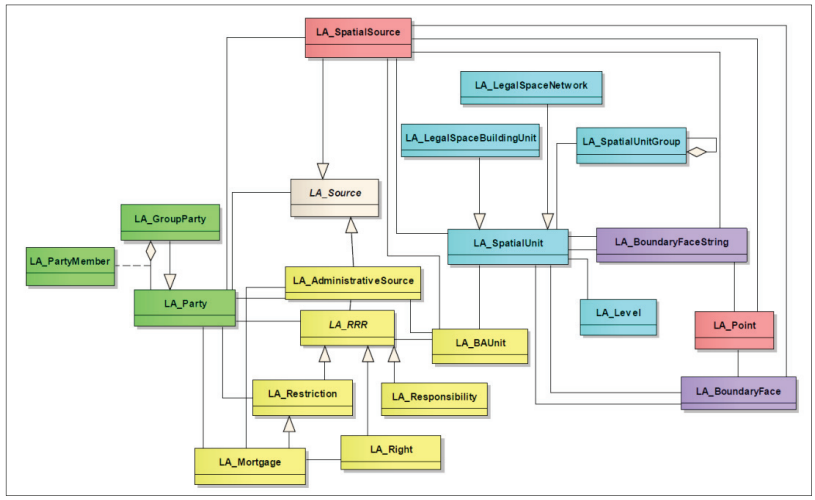


**Figure 1.8.** The core classes of LADM. The different colours present the different packages: green the party package, yellow the administrative package, blue the spatial unit package. The purple and red represent the subpackages of the spatial unit package. (Lemmen et al. 2013, p. 10-11).

There are four main classes that create the core of the LADM. The classes are LA_Party, LA_RRR, LA_BAUnit and LA_SpatialUnit, which are divided into three main packages: party, legal/administrative and spatial unit. The party package consists of two main classes, LA_Party and LA_GroupParty. There is also an optional class between those two classes, LA_PartyMember. A party in this model is a natural or legal person that is somehow involved in the transaction of rights. A group party is a group formed of parties, for example a tribe or community. A party member is a registered and identified member of a group party. In this model, the party may also be someone that is not directly involved in rights transaction, so it is not necessarily only the contract parties, but it can also be citizens, banks, etc. The attributes of party classes are identifiers, types of groups, etc. (Lemmen 2012, p. 95-96)

The main classes for the legal administrative package are LA_RRR and LA_BAUnit. The main class of LA_RRR (rights, restrictions and responsibilities) consists of three subclasses, LA_Right, LA_Restriction and LA_Responsibility. Right is an action, class of actions or activity, and this class includes e.g. ownership right, possession and customary right depending on the national legislation. Restrictions are formal or informal and they prevent something from being done that would otherwise be allowed. This class also contains easements and mortgages for restrictions to ownership right. Responsibilities are also formal or informal and they are obligations to do something that otherwise would not be obligatory, for example the removal of snow from a pavement. LA_BAUnit (basic administrative unit) is a class consisting of administrative units against which rights, restrictions and responsibilities are associated. The basic administrative unit may consist of zero, one or several spatial units, depending on the right, restriction or responsibility associated with it. For example, a basic administrative unit may be an entity consisting of land, a house and a parking place. In addition, a group of these kinds of basic administrative units may create a group party (LA_GroupParty). (Lemmen 2012, p. 97-98)

In LADM the third package is the Spatial Unit Package. Its core class is LA_SpatialUnit. A spatial unit may be single or multiple land and/or water areas, 3D space or a parcel. Spatial units have two special classes, building units and utility networks, of which utility networks may be recorded as LA_BAUnit. Spatial units in this model may be based on sketch, text, point, line, polygon or topology and has attributes such as area and dimension. (Lemmen 2012, p. 101-105)

### 1.5.5 Legal Cadastral Domain Model

Paasch (2012a) introduced his doctoral dissertation in 2012 at KTH – Royal Institute of Technology, with the topic “Standardization of Real Property Rights and Public Regulations – The Legal Cadastral Domain Model”. The goal of the dissertation was to develop a model for classifying real property rights and public regulations. The thesis included six papers, starting from object-

oriented and terminological approaches and ending with modelling public regulations. The model enables parties to transform information between different countries' cadastres since it standardises the terminology and therefore the parties do not need to have deeper knowledge of the different parties' legal systems.

The Legal Cadastral Domain Model (LCDM) starts from the idea of right as a link between man and land. In this model the ownership right is seen as a central right to which other types of rights may either be beneficial or restricting (see Figure 1.9). The main categories of the rights and restrictions are beneficial rights, public advantages, limiting rights and public restrictions. (Paasch 2012a, p. 26)

Paasch (2012b, p. 24) mentions that this type of model is suitable for exchanging property rights and public restrictions for different kinds of legal systems. The key factor to this is that the model is simple enough and is applicable for different kinds of systems. In the model there are five rights which may be beneficial or limiting rights for the ownership. The rights are common, property-to-property right, person-to-property right, latent right and monetary liability. The classification for the first three rights is made based on the subject of the right, i.e. who is executing the right. Latent right is classified as a temporal condition in which the right has not been executed yet. Monetary liability is based on the economical content, not on the subject. One could say that the first three rights are based on the subject and the last two on the content of the right. (Paasch 2012a, p. 27)

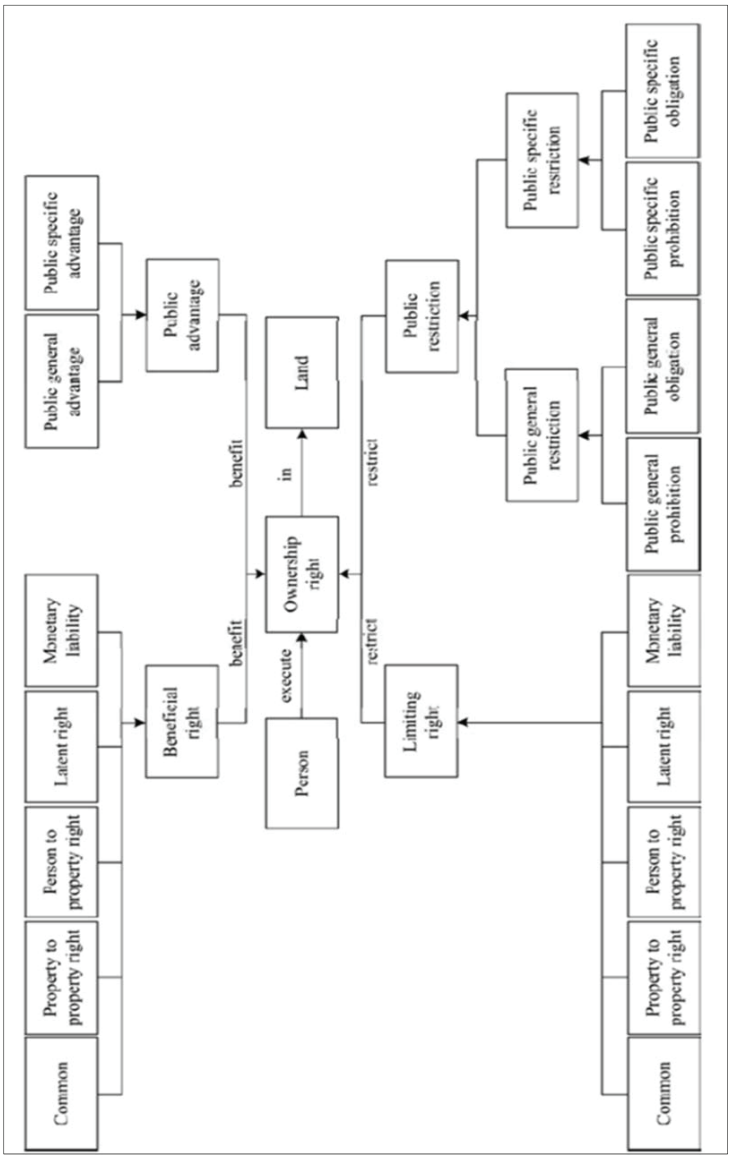


**Figure 1.9.** Legal Cadastral Domain Model (Paasch 2012a, p. 26)

The public advantages and restrictions have three main classes in the model: public advantage – the beneficial right to the ownership, and public-general and public-specific restrictions, which are restricting rights to the ownership. Public advantage is further divided into classes; public-general and public-specific advantage. Public-general restriction includes two classes, public-general prohibition and public-general obligation. Public-specific restrictions are classified similarly into public-specific prohibition and public-specific obligation. Unlike the rights on the left side of the LCDM, the public rights and restrictions are classified based on their influence to the ownership right, what

is prohibited, what is obligatory and what is based on the owner's willingness. (Paasch 2012b, p. 27; Paasch 2012a)

The LCDM has been studied and found to be suitable for expanding the LADM legal profiles and code lists for classification of the LADM classes "Rights", "Responsibilities" and "Restrictions". Since the LADM classes now support a variety of national property rights and regulations, the use of LCDM extension enables a conceptual point of view for modelling the interests in land. In addition, the use of standardised terminology in LCDM enables a more detailed and better understanding of national interests in land and changing knowledge internationally. (Paasch et al. 2013, p. 1, 14)

## 1.6 Setting the research problem

The objects of this study are the property rights and their registration and concept of real property in Finland. The focus will be on the dimensions of a real property and not the physical dimension, but rather the rights and shares of joint property units. The purpose of this study is to analyse the concept of Finnish real property and compare it to international models and standards.

### 1.6.1 Research questions

The primary goal of this study is to model the registration of Finnish property rights in the current system to explore whether it can be done according to the international standard (ISO 19152) and models (LADM, LCDM). There is a strong hypothesis that the concept of real property shall be deconstructed in a manner that the rights will be separated from the actual real property, and the real property should act as an object for the rights. To do that, we need to clarify the different dimensions of real property. To achieve the goal, the following research questions are formed:

1. **What is the concept of real property in the Finnish Cadastral System and should it be deconstructed?**

   With this question the purpose is to define the different parts of Finnish real property as they are provided for in the Real Property Formation Act (later RPFA 554/1995). The goal is to examine the concept of real property as an object of right and that is why there is a need to study whether the rights should be separated from the concept of real property or not. With this question the purpose is to go through different models and standards developed for the cadastre. To answer this research question, study using the National Land Survey of Finland's (NLS) database is needed. This will give the answer to how many and what type of property rights there are in the cadastre.

2. **How have the real property rights and restrictions been handled in cadastral surveys and entered into registers at different times throughout history?**

   With the help of historical study, I will attempt to answer the question of how these rights and shares have been established, maintained and handled in cadastral surveys and legislation and how they have been recorded in the cadastre at different times. By answering this question it may be possible to create a systematic way to register property rights.

3. **What are the international models and standards for the cadastral system and how do they fit into the Finnish concept?**

   The chosen models to be studied are ISO standard, Land Administration Domain Model (LADM) and Legal Cadastral Domain Model (LCDM). The models are to be studied from the point of view of the Finnish concept of real property.

4. **How should the registration of real property rights and restrictions be modeled and systematised so that the renewal will fulfil the international models and standards for the cadastral system?**

   Since the special interests[9] are clearly a problematic part of the Finnish cadastral system, there is a need to find a systematic way to register them. This question helps to find the answer to registering property rights systematically.

Based on the answers found for these questions above, a model of the Finnish country profile for ISO 19152 LADM and its legal extension Legal Cadastral Domain Model is given by using object-oriented modelling.

### 1.6.2 Structure of the study

The structure of this study is presented in Figure 1.10. This study is divided into eight parts, which are introduction, cadastral systems, the concept of real property in Finland, the history and development of the Finnish cadastral system, the basis for building the FI country profile, the FI country profile for the administrative package and its legal extension, results and conclusions.

[9] Special interests are old types of property to property rights, for more detailed description see section 5.1.4 “Special interests”.

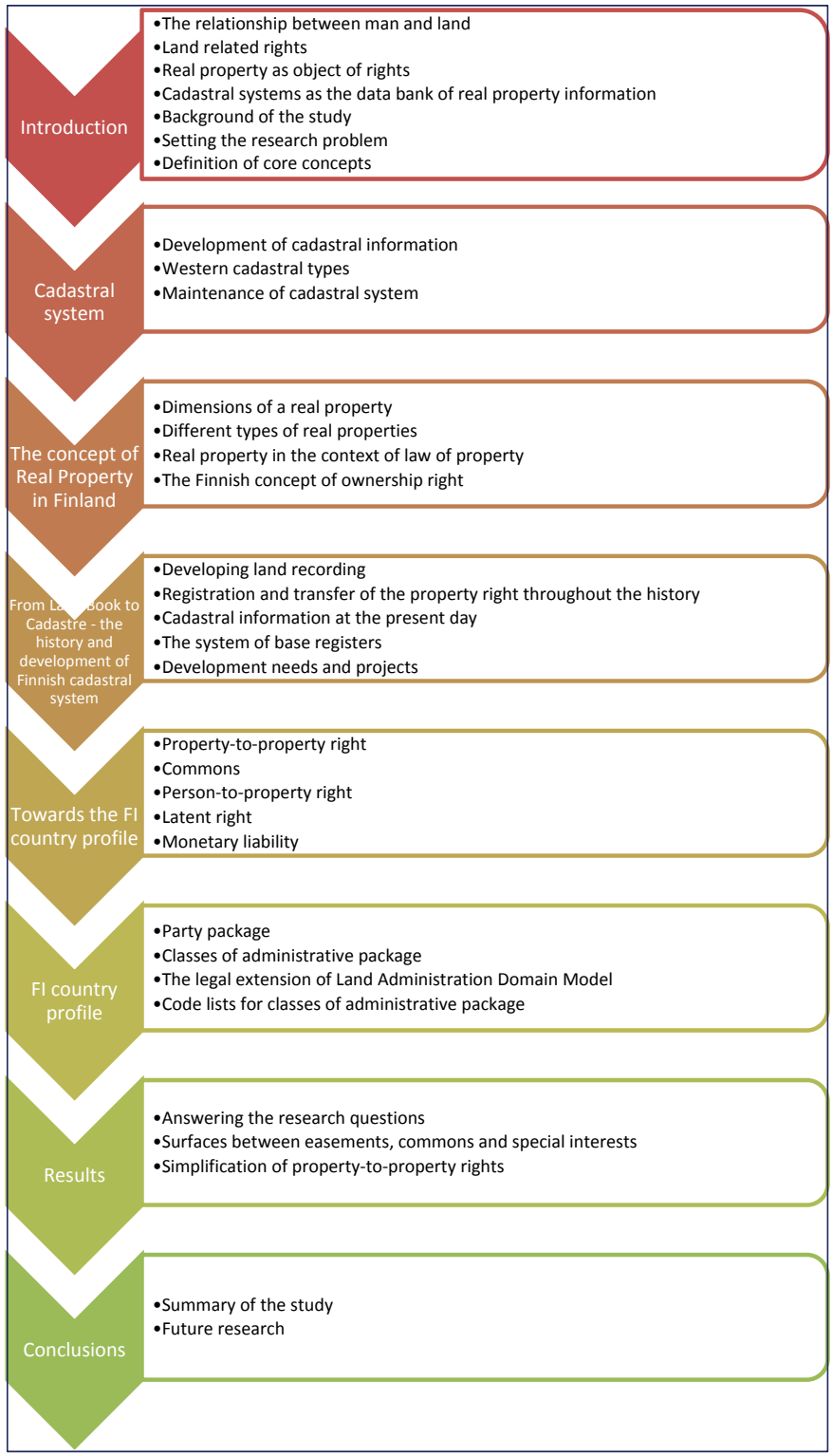


**Figure 1.10.** Structure of the study.

**Chapter 1 Introduction.** This chapter introduces the background to the study by starting with the relationship between man and land. The concept of land related rights and real property as an object of rights are introduced. This chapter also gives a brief introduction to cadastral systems and cadastral information. As for the background to the study, the international projects of EULIS, INSPIRE, ISO 19152 Land Administration Domain Model and Legal Cadastral Domain Model are presented. The setting of research problem as well as the methods, materials and limitations of this study are presented. The core concepts used are also explained in the context of this study.

**Chapter 2 Cadastral system**. This chapter presents the key concepts of cadastral systems. Firstly, the development of cadastral information is presented from the point of view of the relationship between man and land. Then the western types of cadastral systems, their characteristics and use around the world are presented. Finally, the maintenance of cadastral information is presented.

**Chapter 3 The concept of Real Property in Finland**. This chapter is dedicated to the Finnish concept of real property. The different legal and physical dimensions of real property are presented. There are nine different types of real property in the Finnish cadastre, which are presented. The concept of real property is also examined from the perspective of law of property, and also the constituent parts and appurtenances of real property are presented. For a deeper perception of ownership right, the Finnish concept of ownership is presented.

**Chapter 4 From Land Book to Cadastral Information System – The history and development of the Finnish cadastral system.** This chapter illuminates the history of recording land rights in Finland. It starts by describing the phases of registers from the first land book to the urban cadastre. After that the registration and transfer of property rights in different times is examined. The current cadastral system and the information it contains is then introduced. The chapter describes the cadastre, a cadastral map and the land register and then moves on to the integration of registers by introducing the system of base registers. Finally, the chapter describes the already recognised development needs of the Finnish cadastral system.

**Chapter 5 Towards the FI country profile.** The goal for this chapter is to develop a country profile for Finland in the administrative package of the Land Administration Domain Model. To do this, the Finnish property rights are examined and their characteristics recognised and compared with the definitions of the Legal Cadastral Domain Model. The structure of this chapter is based on the legal extension of the Land Administration Domain Model. It presents property-to-property rights, commons, person-to-property rights, latent rights and lien in Finland as well as public advantages and public regulations.

**Chapter 6 FI Country Profile.** This chapter presents the Finnish country profile for the administrative package of the Land Administration Domain Model. Based on chapter 5 “Towards the FI country profile”, a model for the

Finnish cadastral system in the framework of ISO 19152 Land Administration Domain Model is presented. This chapter also presents the code lists for the administrative package.

**Chapter 7 Results.** This chapter presents the results of the study. Each of the research questions are answered individually and after that, the results of the differences and similarities within the "Property-to-property" class and "Common" class are presented, followed by a suggestion for simplification of the Finnish property-to-property rights and their registration.

**Chapter 8 Conclusions.** This chapter presents the summary and conclusions of the study and gives suggestions for possible future research.

## 1.7 Methods and materials

### 1.7.1 Methods and materials

This is an empirical study which is based on qualitative research and modelling. Empirical study in terms of legal research may be defined broadly (some say, even too broadly, see Dobinson & Johns 2007, p. 18) as follows:

> *"What makes research empirical is that it is based on observations of the world—i.e., data, which is just a term for facts about the world. These facts may be historical or contemporary, based on legislation or case law, the results of interviews or surveys, or the outcomes of secondary archival research or primary data collection. Data can be precise or vague, relatively certain or very uncertain, directly observed or indirect proxies, and they can be anthropological, interpretive, sociological, economic, legal, political, biological, physical, or natural. As long as the facts have something to do with the world, they are data, and as long as research involves data that is observed or desired, it is empirical."* (Epstein & King 2002, p. 2)

The data for this research is, in addition to literature and law drafts, information in the Finnish cadastre and land register and the registers previous to them, minutes and maps of cadastral surveys and court cases. This research belongs to the discipline of surveying and the points of view used are land management and legal. Bearing in mind the goals and the material of the study, comparative and historical analyses are also made.

When the literature review is done and the possible property right types are found, the next step is to model the rights. The roots of modelling lie in understanding the complexity of computer systems, but may be implemented in a legal domain model as well (Paasch 2005, p. 121). And why not – as Booch et al. (1999, p. 16) state, a model is a simplification of reality. It is only a matter of describing the ontology of the legal aspects in the domain model (Uitemark 2001, p. 19; van der Vet & Mars 1998, p. 513)

Paasch (2005) has approached the problem of modelling property rights by using object-oriented modelling, or more specifically, Unified Modeling Language (UML). There are several modelling languages for object-oriented modelling (see Booch et al. 1999, p. 11) but using the UML seems to be a natural decision as it is also the modelling language used in the ISO 19152 LADM. However, Paasch (2005; 2012) has simplified his models by leaving out attributes and functions from his presentation. This seems to be a justified decision since his model is general and "including them [attributes and functions] would lead to an unnecessary complication of the general model" (Paasch 2005, p. 122).

In this study, the Finnish property rights are analysed by using the Legal Cadastral Domain Model created by Paasch (2012a). After that, a country profile is created by using the Land Administration Domain Model (ISO 19152) and Unified Modeling Language (UML).

There are different approaches for legal research of which in this research doctrinal and non-doctrinal methods are used. Doctrinal legal research, or legal dogmatic or theoretical legal research, is focused on actual law whereas non-doctrinal legal research focuses on policy or law reform. Doctrinal legal research answers the question: what is the law in a certain area? Non-doctrinal legal research may be grouped into three categories which are problem, policy and law reform. The content of each category is not strictly defined and may vary between different pieces of research. (Dobinson & Johns 2007, p. 18-19)

It is not unprecedented that legal research consists of both doctrinal and non-doctrinal research. As Ambaye (2013, p. 21) describes, legal research could be carried out by using doctrinal methods to define a legal system in a certain area, then finding out the possible problems concerning the legislation, the policy behind the legislation and finally by proposing some sort of law reform. The latter three of these categories are researched by using non-doctrinal methods. (Ambaye 2013, p. 21)

In this study, the doctrinal legal methods are used to illuminate the current and previous Finnish legislation. The non-doctrinal methods are used to determine problems within Finnish legislation and proposing possible law reforms to tackle the problems. Based on the observations made during the legal research, a model describing the Finnish system of property rights is created.

### 1.7.2 Limitations

The object of this study is the concept of real property in Finland. The research is carried out by studying the dimensions of real property, but the physical dimension will be left out. So the study will focus on property rights within the Finnish concept of real property but also other property rights and restrictions. The study is done from the point of view of land management and maintaining a cadastral system, which means that most of the attention will be paid to those kinds of rights and restrictions that are not entered into the cadastre or land register. The purpose of this study is not to comprehensively detect all the rights, especially the special interests, missing from the register but rather to present, with the help of examples, how many rights are still

missing from the cadastre. When it comes to the historical review, it should be noted that those areas that are not part of present-day Filnad are beyond the scope of the research.

## 1.8 Core concepts

Dispite the attempts to define and standardize core concepts of land administration (see e.g. Paasch 2008), there might be differences in understanding the concepts in different countries. In order to avoid any misunderstandings, the core concepts are defined briefly in the context of this study as follows:

**Cadastral system** a system consisting of cadastre, cadastral map and land register. Updating of the information is part of the cadastral system.

**Cadastre** a register of real properties, their identification information and characteristics, a part of cadastral system.

**Land register** a register of property rights, such as ownership right and mortgage, a part of cadastral system.

**Property-to-property right**
a right belonging to a real property in an area of another real property.

**Easement** a type of property to property right; in Finland established according to numerus clausus principle.

**Common** a right belonging to two or more real properties by certain shares.

**Special interest** an old type of Finnish property to property right which may not be established anymore.

**Use right** a property-to-property right or a person-to-property right entitling its holder to use another real property.

**Use right unit** a register unit in JAKO[10]-system which normally has a location and identification number. It may be an easement or other property right.

[10] The JAKO system is a spatial data system used and maintained by the NLS and is meant for handling and producing spatial data (see e.g. Kokkonen 2000p. 10-11).

**Property right** a right whose object is a real property or a register unit.

**Person-to-property right**

a right whose subject is natural or legal person and object is real property.

**ISO 19152 Land Administration Domain Model**

a standard approved by the International Organization of Standardization concerning land administration.

**Legal Cadastral Domain Model**

a model which classifies property rights and regulations into benefitting or encumbering rights towards ownership right.

# 2 Cadastral system

Subject, right and object create the basis for cadastral systems. Almost all developed cadastral systems consist of three basic elements: map, cadastre and land register. A map demonstrates the physical area of real property, which means its boundaries and location. The cadastre is a list of real properties that includes all the real properties and other corresponding register units and also the changes made in legal cadastral surveys. The land register is a list of property rights. (Hyvönen 1998, p. 1-2)

According to Henssen (1995), a cadastre is required for governmental and land management issues, but does not automatically create good land use. There are many land reforms that may be executed with the help of a cadastre, but creating one should not be seen as land reform itself. It is a tool for contributing to changes caused by reforms. It shall be remembered that a cadastre is a register of rights, but it does not create the rights. The role of a cadastre as a pure register is underlined in literature and it should not be seen as a synonym for land tenure or security for land rights, which should be based on national legislation. (See Henssen 1995)

A cadastral system does not only comprise the above-mentioned basic elements, but from the land management's point of view it also includes the maintenance of the system. The maintenance includes all the cadastral proceedings, legal acts and official solutions which influence the cadastral system. (Vitikainen 2013, p. 20; 22) There is a certain need for dynamism in land rights and the cadastral system (as well as the legislation) has to fulfil these needs (Mattsson 2003, p. 31) (Figure 2.1).

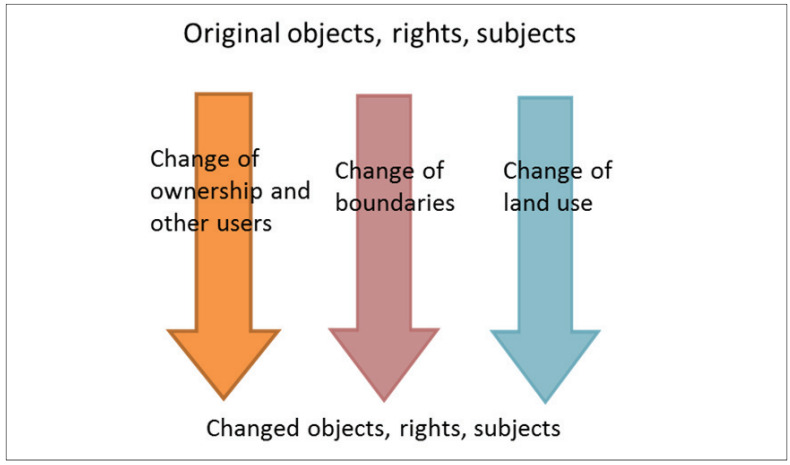


**Figure 2.1.** Need for dynamism in land rights. (Based on Mattsson 2003, p. 31)

The cadastral system needs to enable changes in objects, rights and subjects. The subject may change, and the ownership or other users of the object may be changed through transaction or by other means. The object itself may change, and the boundaries of the object may change, (usually) through cadastral proceedings. Also the rights related to land may change; the land is not always used the same way. This dynamism must be allowed in a cadastral system. (Mattsson 2006, p. 22-23; Mattsson 2003, p. 31)

## 2.1 Development of the cadastral information

The cadastre and cadastral information have been developing for a long time as the use of land has become more complex as a result of the different phases of the relationship between man and land. (Williamson 1999) We have come a long way from the first fiscal cadastres to the today's multi-purpose cadastre (see Figure 2.2).

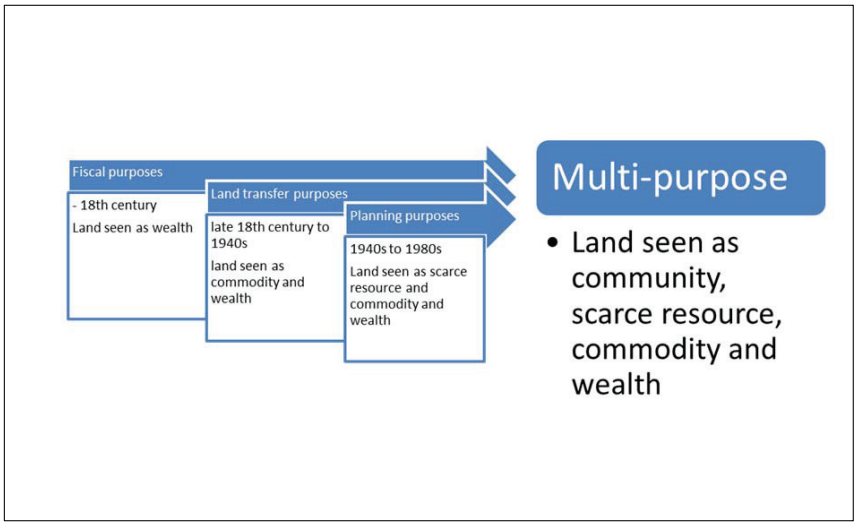


**Figure 2.2.** The evolution of the land administration infrastructure (according to Williamson 1999)

The changes and the need for dynamism in the relationship between man and land have changed the requirements for cadastral applications. When the cadastral system was first introduced in France in the 18th century, land was seen mainly as wealth which created the need for fiscal purposes. In the era from the late 18th century up to the Second World War the distinctive features were industrial revolution and developing land markets. Land was also seen as a tradable good, which meant that the cadastre needed to respond to the land transfer purposes. As time went on and the Second World War ended, there was a need to rebuild, which led to a need for land use planning. This, again, led to a situation where the cadastre needed to meet the planning requirements. Nowadays

a modern cadastre responds to the combination of the early purposes: land is seen as community, a scarce resource, a commodity and wealth, and a cadastre acts for all of these purposes. (Williamson 1999).

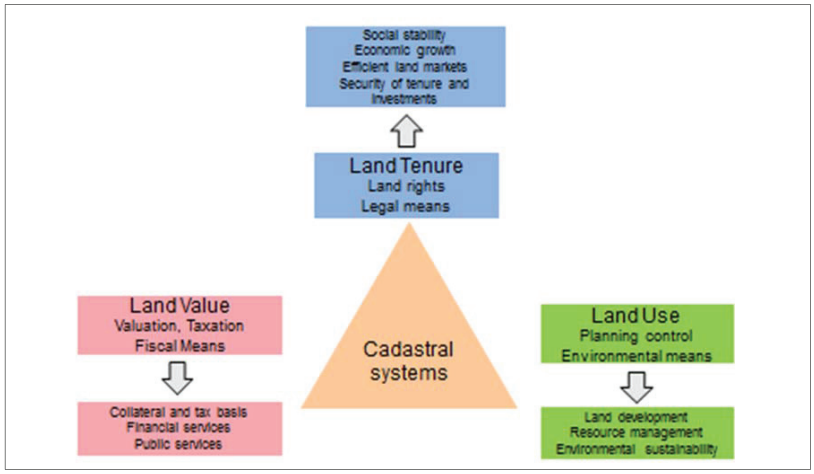


**Figure 2.3.** A multi-purpose cadastral system supports the functions of land tenure, value, use and development. (Enemark 2004, p. 4)

The modern, integrated and multi-purpose cadastral system should interrelate with environmental, fiscal and legal means by providing tools for planning control, valuation, taxation and registering land rights. Still, traditionally, the German system of a multi-purpose cadastre functions to support all the multi-purpose goals of a cadastre, but by using separate functions. In order to achieve land development, resource management, environmental sustainability, collateral and tax basis, financial services, public services, social stability, economic growth, efficient land markets and security of tenure and investments, all the functions of Figure 2.3 need to be interrelated. (Enemark 2004, p. 4; Williamson et al. 2010, p. 123)

## 2.2 Western cadastral types

The western types of cadastral systems are the German, French, English and Torrens system (Figure 2.4). A cadastral system may be based on a cadastre or a land register, and all the western types represent either one of these types. Cadastre-based systems were originally developed for fiscal purposes and they are based either on registering titles or rights. Among the western systems the former basis is seen in the French cadastral system and latter in the German cadastral system. Cadastral systems based on land registers were originally developed for securing private titles and rights associated with the land and they are based on registering rights. Among the western cadastral systems these kinds are seen in the English and Torrens systems. (Larsson, G. 1991, p. 22)

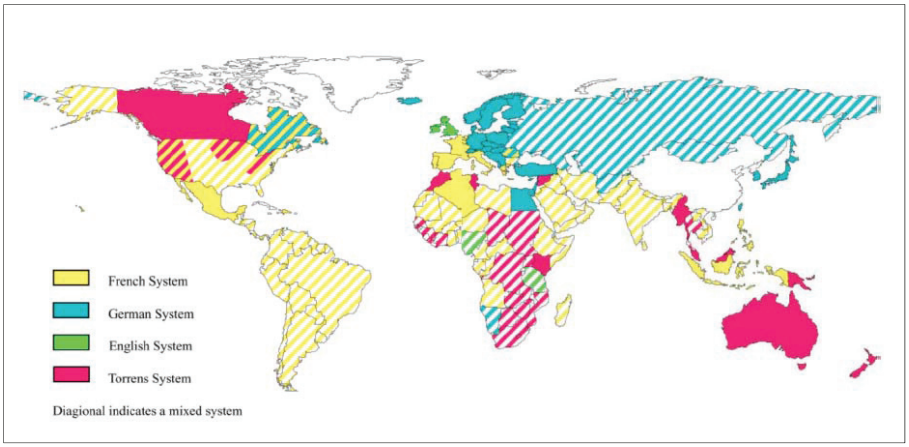


**Figure 2.4.** The cadastral systems used around the world. (Enemark 2007)

From a historical perspective, the primary goals of western cadastral systems have varied and supported different purposes. The history of the German system lies in creating and maintaining the cadastre and land market activity has been given minor attention. On one hand, the Torrens system was highly supportive of land market activities, whereas the maintenance and spatial cadastre have been developing along the main focus. (Williamson et al. 2010, p. 124) However, nowadays a multi-purpose cadastral system interrelates with the functions of land use and development, land value and land tenure (Figure 2.3). (Williamson et al. 2010, p. 123-124)

On the other hand, cadastral systems may be classified based on the registration process used. The system may be based on registering deeds or titles. When classified like this, the French system forms the first (deeds system) group and the German, English and Torrens systems are based on registering titles (titles system). The fundamental difference between title and deed registration is that registering deeds means registering the legal action (transaction), whereas registering titles means registering the consequences of legal action (Table 2.1). (Enemark 2008, p. 84-85; Henssen 1995)

**Table 2.1** Deeds and title systems. (Enemark 2008, p. 84-85; Vitikainen 2013, p. 27)

| System | Deeds system | Title system |
|---|---|---|
| Information in the register | Who owns what | What is owned by whom |
| Register | Register of owners | Register of properties |
| Legal effect | Registration of transaction | Registration of ownerhsip right |
| Reliability | Title is not guaranteed | Title is guaranteed (by the state) |
| Role of the register | Taxation purposes | Identification of the object of ownership right |

In the deeds system, as the information in the register describes who owns what, the register is a list of owners. The information in the title system describes what is owned by whom, so the basic register unit is a real property. When the deeds system registrates the transaction, the title system registrates the ownership right. This means that the reliability of register in the deeds system is not as strong as in the title system. In the title system the title is guaranteed by the state, as the transfer of ownership right is investigated, opposite to the deeds system. (Enemark 2008, p. 84-85; Vitikainen 2013, p. 27)

The western cadastral types are based on either a common or civil law system. Land register-based systems are maintained by registering rights, and they comprise the English and Torrens systems. Cadastre-based systems are either based on registering deeds or registering titles, the former is represented by the French system and latter by the German. (see Figure 2.5)

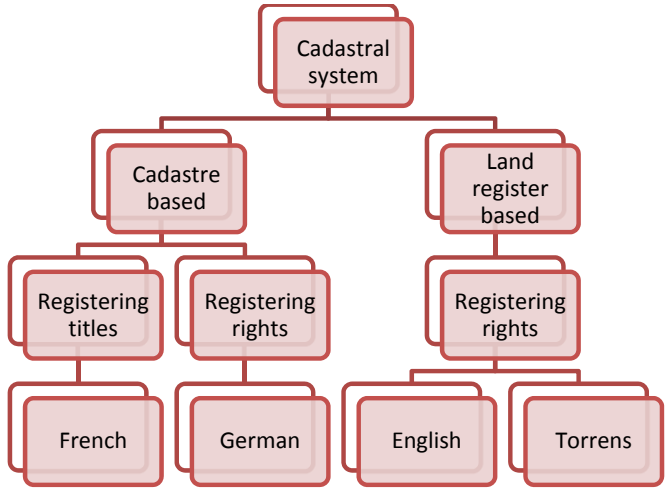


**Figure 2.5**. The cadastral systems and their western types. (Rummukainen 2010, p. 51 based on Larsson 1991, Henssen 1995 and FIG 1995)

In cadastre-based cadastral systems, the register units are systematically identified in cadastre and cadastral maps. Napoleon established the French cadastre in 1808 and it has acted as a model for cadastral systems based on the French idea. The land book in the French system is a register of titles and due to a lack of updating the cadastre, the connection between the land book and the cadastre is rather weak. The French system and different variations based on it are used for example in France, the Netherlands, Belgium, Spain, Italy and in those parts of North and West Africa, Asia and South America where countries have been brought into contact with France during their history, for example as a result of colonialism. (Henssen 1995; Vitikainen 2013, p. 28-29)

In the German cadastral system, the cadastre and land register create an integrated entity that complement each other. These registers have been developed in different organisations: the cadastre in cadastral authorities and land registers in legal authorities. This system is based on registering rights and

the property division in the land register is based on property division in the cadastre. The German land register (das Grundbuch) is considered to be the first one in the world. The German system and its variations are used outside Germany for example in the Nordic Countries, Austria, Switzerland, Egypt and Turkey. (Henssen 1995; Hyvönen 1998, p. 3; Vitikainen 2013, p. 29-30)

A cadastre does not exist in the land register-based English system, contrary to other types of western cadastral systems. The land register includes both a register on real properties as well as register on rights associated to real properties. This system is developed for securing ownership rights. No cadastral map exists either, but the property boundaries are shown on a plot map that is enclosed with a document for right of possession, and on a large-scale base map. With the help of these maps the boundaries of the register unit ("general boundaries") may be located and seen on the terrain. These general boundaries are also visible on the terrain, they can be roads, fences, ditches, etc. Not all the land is registered in the English system but the real properties have been registered progressively as they are sold or leased with a long lease since the development of the register (1925). The English system is used for example in the United Kingdom, Ireland, parts of Canada and Nigeria. (Henssen 1995; Vitikainen 2013, p. 30-32)

Sir Robert Torrens created his own cadastral system to secure ownership rights in Australia in 1858. Originally the state owned all the land and settlers were given tracts of land for their private ownership. They made a certificate of title with two original copies: one for the owner and one for cadastral authority. The certificate of title included details on the conveyance and easements and liens associated with the land area. The areal dimension was marked on a map based on measuring the boundaries. All the changes concerning the real property are marked on the certificates of title. Later on, there was a need to locate the real properties more precisely and it has led to a situation where a cadastral map was added to the Torrens cadastral system. The Torrens system is used for example in Australia, New Zealand, Morocco, Tunisia, Syria and some parts of Canada and the United States. (Henssen 1995; Vitikainen 2013, p. 32-33)

## 2.3 Maintenance of cadastral system

Despite the fact that cadastral systems may be based on either a cadastre or a land register, either registering titles or deeds, they all have a uniform goal: to describe the existing world and property structure as realistically and comprehensively as possible. This is why when studying cadastral systems it may not be necessary to distinguish between different models, but to use a systems approach for cadastral systems. (see Zevenbergen 2004)

Registering information into a cadastral system may be described using a static or a dynamic model. The static model is based on the connection between man and land (see figures 1.1 and 1.4, chapter 1). This model explains the registering process with the help of subject, right and object and all of the

factors in this model need to be unambiguously identified. All these three factors are related to each other but in this context it is not possible to discuss the systems approach until these factors are really connected with each other. (Zevenbergen 2004, p. 13)

The dynamic model explains the cadastral system with the help of its three main tasks. These tasks are adjudication, property transfer and subdivision. Zevenbergen (2004) describes the dynamic model with the help of a "mushroom" (see Figure 2.6). According to this model, the registration process should be considered as one whole system with all the factors included in the process. It would make no sense to accomplish one of the tasks, if all the other tasks could not be accomplished. Depending on the cadastral system the emphasis of this model might be either on the first registration or maintaining the system. (Zevenbergen 2004, p. 13)

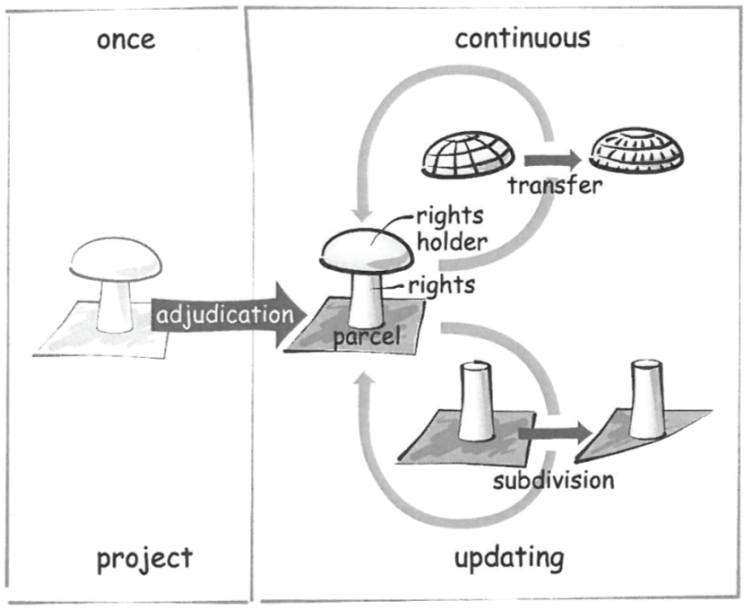


**Figure 2.6.** The dynamic model for registering real properties. (Zevenbergen 2004, p. 13)

When a cadastral system is introduced in a certain area, the first task is to connect the real properties in the cadastre. This is the basic requirement for a functioning cadastral system and it is done only once. After this the continuous part of registering starts. Cadastral systems include real properties that have certain rights. These rights determine how the right holder (owner of real property) may use his/her real property. The right holder may change throughout the transaction but the rights remain the same. In addition, the real property may be subdivided or the rights change without changes in ownership. (Zevenbergen 2004, p. 14)

Zevenbergen (2004, p. 1) describes the real property registration as the official recording of titles or deeds. Registering real properties and rights associated to them can be seen as a three-dimensional process, where the entity is created from land management, system management and information management. Figure 2.7 presents Nichols (1993, p. 3) model for registration of real properties.

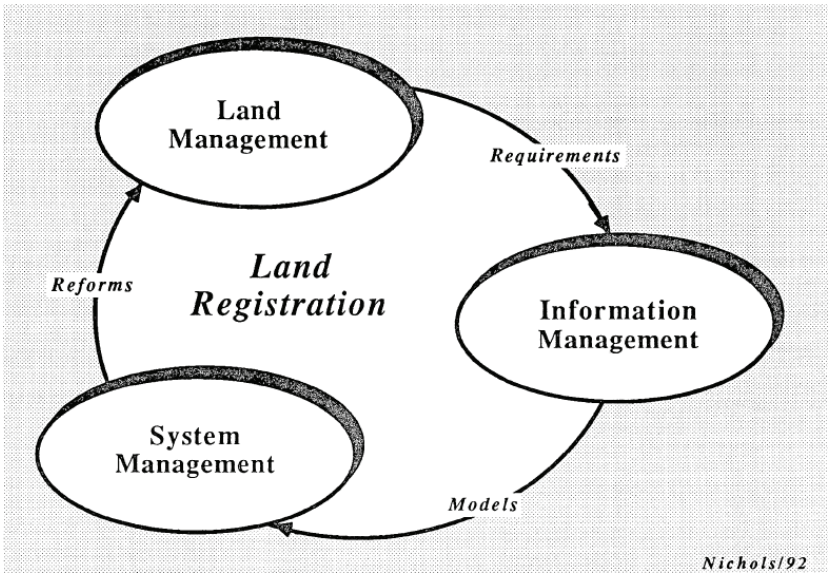


**Figure 2.7.** The system of land registration. (Nichols 1993, p. 3)

The registration of real properties can be seen as a process whose end product is the cadastre. According to the model presented by Nichols (1993, p. 3), the registration consists of the circulation of three different parts: land management, information management and system management and their internecine connections. In order to achieve a reliable land registration process, the registration should be systematically organised and based on certain rules. The reliability sets some requirements for processing and managing the information to gain a unified result. To record information, it should be modelled uniformly. The system should be up to date relative to information management and use. Different reforms need to be made to the information system to respond to the needs of land registration. These reforms affect to the management of land and property rights.

# 3 The concept of real property in Finland

The concept of real property is based on national legal literature and the legal definitions may be considered relatively new. The new Real Property Formation Act (lRPFA 554/1995) includes some major changes considering the central concepts of real property compared to the previous interpretations based on law from 1734. (Hyvönen, 1998, p. 4; Viitanen et al. 2003, p. 66)

The Finnish concept of real property is defined in chapter 1 section 2.1 of the RPFA 554/1995. A real property is defined as an independent unit of land ownership, which shall be entered into a cadastre according to the Act on Cadastre (later CA 392/1985) as real property. Further, section 2.1.1 of the same Act outlines the dimensions of real property, including the parts the real property consists of. Not only does the real property comprise the physical area, but also shares of joint property units, easements as well as shares of joint special interests and private special interests (Figure 3.1). Bearing in mind the concept of real property as an object of rights, we find an inconsistency between the first definition and the Finnish definition. In the Finnish definition some of the rights actually belong to a real property, or may even create a real property by themselves without any physical dimension.

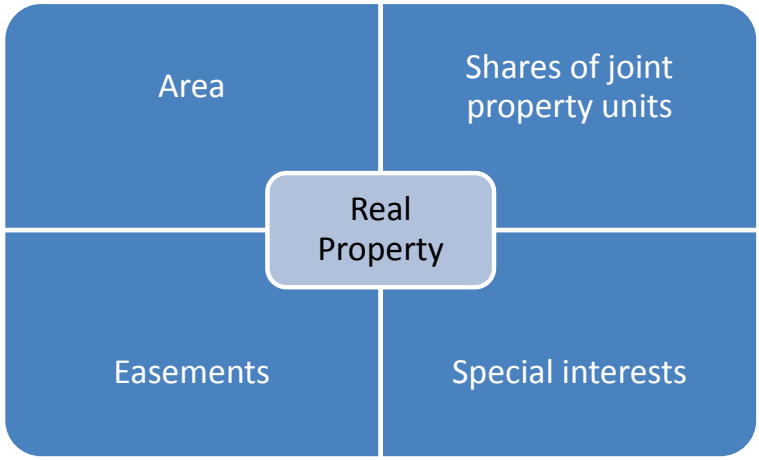


**Figure 3.1.** The dimensions of a real property according to the RPFA 554/1995.

Not only can a real property comprise the physically limited area, which can be both land and water area, but it can also comprise the shares of joint property units, easements and special interests, which can be private or shares of joint special interests. A single real property may consist on one, two or more components of the dimensions. In cases where the real property does not have any physical area but only shares of joint property units, for example, it is called "haamutila". However, an easement itself is not seen as real property (see GP 227/1994).

## 3.1 Dimensions of a real property

### 3.1.1 Physical dimension

The physical dimension of real property can be seen in the terrain. Previously, a real property was defined in Finland as a demarcated part of the Earth's surface. It should be registered as a unit in the cadastre and it was the object of ownership right and other property rights. (Haataja 1949, p. 799; Hyvönen 1982, p. 4; Zitting & Rautiala 1982, p. 22-23). The current definition, which also includes the other dimensions, differs from the old one. However, we can use it when defining the physical dimension. By physical dimension we mean the demarcated part of the Earth's surface which is entered into the cadastre under the corresponding real property and also on a map. Whenever possible, the physical dimension is marked by boundary marks in the terrain. A Finnish real property may consist both of land and water areas and may comprise several separate land parcels. (Vitikainen 2009, p. 4-5)

Finnish legislation does not define the vertical dimension of real property, in other words the dimension downwards below the Earth's surface and upwards to the atmosphere. According to the fundamental concept of real property, it reaches downwards to the centre of the Earth and upwards so that the sky belongs to the real property as well. The concept furthest away from the previous idea is that the real property does not reach under the ground or up in the air at all. (Hyvönen 1982, p. 8)

In practice we can say that a real property reaches vertically as deep and high as its owner benefits from the use of soil and air space. On the other hand, the land owner has the right to exclude the other users from the property below or above his real property only in the case when the use causes harm in the form of noise, shaking, vibration of foundations or for other such reason. (Hyvönen 1982, p. 8; Vitikainen 2009, p. 5-6)

### 3.1.2 Common areas

According to the RPFA (554/1995), a common area is a property unit which belongs to two or more property units in certain shares. The common property units and their governance is prescribed in the Act on Common Areas (later

ACA 758/1989). Typically a common area is an area of land or water. We can also understand common forests whose establishment and governance is prescribed in the Act on Common Forests (later ACF 109/2003) as a common area.

Common property units are areas that belong to two or more real properties based on certain shares. They are not real properties themselves but belong as appurtenances to those real properties that have a share of the area. (RPFA 554/1995 section 2.2; Hyvönen 1998, p. 17) Common property units, their governance and the content of common (rights) are presented in section 5.2 "Commons".

### 3.1.3 Easements

An easement is a right to use or to dictate the use of the object of the easement. It is a property-to-property right (see Paasch 2011, p. 108) and is executed by the owner(s) of the dominant real property. (Hollo 1980, p. 18-19)

Although the legal definition of real property claims that easements are one part of real property, the legislator has also meant other types of use rights that are similar to easements, but are not defined as easements in corresponding legislation (GP 227/1994 section 1.2). There are several types of easements and use rights acting similarly to easements, but are defined in different laws. The major classes are easements according to the RPFA (554/1995) and easements according to the Land Use and Building Act (later LUBA 132/1999). All the easements and use rights are explained more precisely in section 5.1 "Property-to-property rights".

### 3.1.4 Special interests

A special interest (Finnish: "*Erityinen etuus*") is an old type of use right that may not be established anymore, but the earlier established rights are still valid. There has not yet been comprehensive definition for special interest neither in legislation nor in literature. However, the legislative materials of RPFA (554/1995) states that it can be for example a right of fishing, right of rapids or right to quarry and the right is based on previous legislation. A special interest is property-to-property right and depending on whether it belongs to one or more real properties, it is either private or joint. (CR 1990, p. 136-137)

Special interests, their types and characteristics are presented in detail in section 5.1 "Property-to-property rights".

## 3.2 Different types of real property units and other property units

The Finnish cadastral legislation straddles nine different types of real property units. The reason behind this is historical; the legislator has not wanted to reduce the number of types because in Finland the right to a mortgage is bound

with the property type. (Vitikainen 2009, p. 2) The different types of real properties are listed in the CA 392/1985 Section 2.1. According to it, the types of property units are: property units; plots of land; public areas; state-owned forest land; conservation areas; expropriation units; areas partitioned for public needs; separate reliction areas and public water areas.

*Property units* are register units which are formed either by dividing homesteads in Basic Land Consolidations or by forming them from other real properties as property units. (Vitikainen 2009, p. 2).

The *plots* of land in a local detailed plan area are formed according to a binding subdivision plan and entered into the cadastre as plots (RPFA 554/1995 section 2.3).

*Public areas* are owned by the municipality and entered into the cadastre as public areas. The public areas are formed from an area (or a part of an area) that is assigned in a local detailed plan as a street area, market or square, recreation area, traffic area, vacation or tourism area, conservation area, danger area, special area or water area. (RPFA 554/1995 section 2.4)

*State-owned forest lands* were originally uninhabited wildernesses that King Gustav Vasa claimed on 20 April 1542. He wrote a letter that stated that these wildernesses belonged to God, King and the Crown of Sweden. The state's status as the holder of regal ownership of the uninhabited wilderness dates back to this claim. By amendment to the Subdivision Act (later SA 604/1951) the state-owned forest land gained the status of real property units. (Hyvönen 1982, p. 5; 59)

*Conservation areas* are founded on a state-owned area in accordance with the Nature Conservation Act (1096/1996) or the legislation in force prior to it (CA 392/1985 section 2.6).

*Expropriation units* are areas which are formed based on compulsory purchase. These areas are usually airports, highways or railways. (Vitikainen 2009, p. 2)

The *areas partitioned for public needs* are formed according to the Decree on Basic Land Consolidation (BLC) 1775 section 5.2 and later on according to the Regulation on Surveying (RS 1848). They are areas for plot lanes, roads, main drains, churches, cemeteries, etc. (Haataja 1949 p. 214-242)

*Separate reliction areas* were formed before the Decree on Forming Separate Reliction Areas as Independent Homesteads (28/1911) was introduced on 13 November 1911. They are owned by someone in the sense that they don't belong to a real property unit, or they have previously belonged to a real property unit but have been transferred to someone else without subdividing it from the homestead. (GP 227/1994, section "Detailed reasoning" 1.1.5.)

The administration and maintenance of *public water areas* are the responsicility of Metsähallitus (the Forest and Park Service) if there are no other regulations or Council of State decisions concerning an area. Public water areas are those Finnish waters and open lakes that are outside of villages' borders. (Act on Right to Public Water Areas 204/1966 sections 1; 4)

*Other property units* that shall be entered into a cadastre are common property units and areas surrounding a road, as referred to in the Act on Public Roads (243/1954, repealed, now: Highways Act, HA 503/2005) and governed by the right of way.

In addition to the historical basis for the different types of properties, section 4, chapter 11 of the Land Code (540/1995) separates real property types based on the need for the registration of title. According to it, the ownership of state-owned forest lands, conservation areas, units under expropriation, areas separated for public needs, separate reliction areas, public water areas and public areas are not registered as title (Jokela et al. 2010, p. 371).

## 3.3 Real property in the context of law of property

In addition to the legal definition (RPFA 554/1995 section 2.1), it is also possible to study the concept of real property from the point of view of law of property. One of the main distinctions in Finnish civil law is the distinction between the law of obligations and the law of property. The relationship between contracting parties, in other words the rights to claims, is prescribed by the law of obligations. The law of property concerns property rights, the relationship between the right holder and a third party. As a legal discipline, the law of property can be seen to extend the questions of use and dispose of them as well as the protection given to a third party. (Kartio 2002, p. 212-213; Kartio 1996, p. 104)

## 3.4 The Finnish concept of ownership right

Finnish law defines ownership as a complete and exclusive right to an object. A person may receive ownership rights in several ways (transaction, trade, gift, inheritance, devisee, etc.) but the ownership right is always created through title. The ownership right includes the right to use the property and also the right to rule the property. (Hyvönen 2001, p. 559; Hyvönen 1998, p. 11; Kartio 2002, p. 234)

These definitions of ownership also apply to ownership of land. The object of ownership is land, and the subject the executor of the ownership right (legal/natural person). Ownership of land is seen in the Nordic legal system as protected title-based owner-possession. In Finland there are two sides to ownership right, the content of the right and protection of law. (Hyvönen 1982, p. 11) The content of the right includes the right to use and the right to manage and exclude others from the property. In addition, the ownership right includes the right to added value and right to transfer. (Hyvönen 1982, p. 11; Kartio 2002, p. 235; Paasch 2011, p. 23) The right to manage can be further classified into private legal competence and procedural competence (Hyvönen 1982, p. 11; Kartio 2002, p. 235)

The legal protection of owner includes both static and dynamic protection. Static legal protection applies against a third party's possessory action or action to seek an injunction. Dynamic legal protection applies in situations of conflicts and means the validity of legal basis in situations of conflicts. (Hyvönen 1998, p. 12)

If we want to classify the holders of ownership rights, the best way to do it is to study the "public" and "private" owners separately. Virtanen (2004, p. 29) has recognised the most important groups (in terms of the amount of land owned) of land owners (Table 3.1). Public ownership consists of state ownership, municipalities and federations of municipalities and parishes. Private ownership consists of the ownership of natural and legal persons. Natural persons have private ownership or private co-ownership. The biggest land owner groups of legal persons are limited companies and co-operatives, other noteworthy groups are foundations, associations, common forests, real property units involved in land division proceedings and estates of a deceased person. (Virtanen 2004, p. 29)

**Table 3.1**. The largest groups of land owners divided into public and private ownership in Finland. (Virtanen 2004, p. 29)

| Public ownership | Private Ownership | |
|---|---|---|
| State | Natural persons: | Legal persons: |
| Municipalities | Private ownership | Limited company |
| Municipality federations | Private co-ownership | Co-operative |
| Parishes | | Foundation |
| | | Association |
| | | Common forest |
| | | Real property units involved in land division proceedings |
| | | Estate of a deceased person |

These classifications are taken into consideration when building the FI country profile in chapters 5 and 6. The reason to distinguish between public and private ownership is the fact that the juridical position may vary between these groups when it comes to questions related to land policy. The public is seen as the preparative and executive party in land policy related measures, whereas the private is seen as the object of actions, which may benefit or restrict their ownership right. (Paasch 2012b, p. 6; Virtanen 2004, p. 29)

# 4 From land book to cadastral information system – the history and development of the Finnish cadastre

Every country has its own version of a cadastral system, developed for the particular needs of that region and legal system and based on their social, political and economic systems (Williamson et al. 2010, p. 26). Since it can be assumed that these conditions have not remained unchanged throughout history, the cadastral system has also changed along with other changes in society. Understanding the current system requires an understanding of the process that has led to the current situation. This is why this chapter presents the development phases of the Finnish cadastre, starting from the first attempts to record land-related rights, continuing to the current situation and finally ending up with the already discovered development needs of the cadastre. However, because the nature of a cadastral system is constantly fluid, we could even discuss the dynamics of a cadastre rather than its development.

## 4.1 Developing land recording

The reasons for developing a land recording system in Finland were mainly fiscal. The oldest institutional tax collected in the Middle Ages was a kind of church tax ("kymmenys") which could be seen as donations to local clergy. Little by little the grounds for taxation became more complex, because the Crown also wanted its share. The differences in taxation between provinces, cities and rural areas varied remarkably. Land recording was a task for centuries. Also the connection between tax and interest in a village was interesting. Heikkilä (1983, p. 360) mentions that originally, the joint use of land in a village was shared according to the work effort. "The yield from slash-burning areas was shared equally according to number of carpenters, yield from meadow according to number of harvesters, the haul of free seines according to shareholders." It seems like the use of a property that was originally common, became to change along taxation under the tenure of shareholders and after that to ownership of shareholders. At the same time, personal tax started to change over to land tax and homesteads were valued according to land tax. King Christopher's Common

Law was enacted in 1442, which stated that the homesteads should be valued according to taxes, even though a homestead might have cleared less or more land than the tax showed. (Heikkilä 1983, p. 360)

The Finnish land recording system as we know it nowadays has developed over several centuries. The development can be seen in Figure 4.1. The land information system consists of title and mortgage register, cadastre and cadastral map. The title and mortgage register is based on a previous mortgage register, title register and site leasehold register, which were originally based on court statements. A cadastre is based on a land book, land book register and land register at the state level and on a city book and urban cadastre at the municipal level. (Lappalainen 2002, p. 124-128; Rummukainen 2010, p. 68)

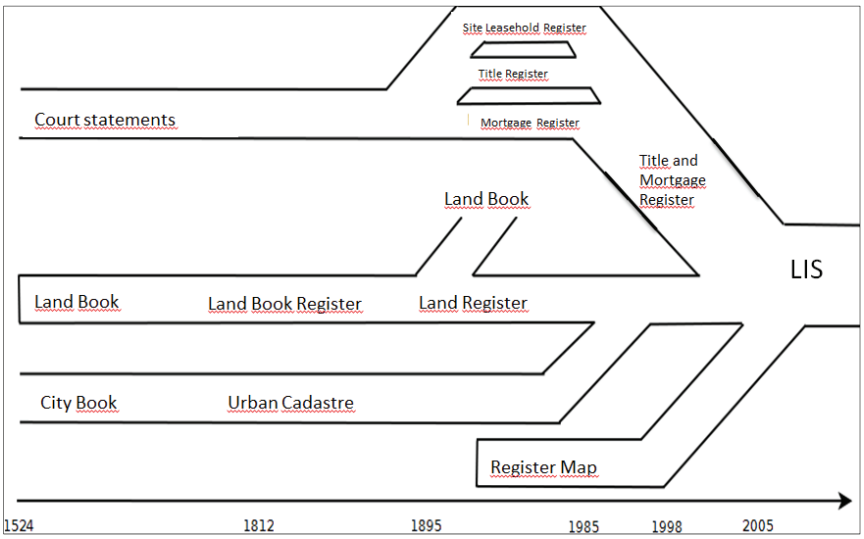


**Figure 4.1**. The development of Finnish Land Information System (Rummukainen 2010, p. 68)

The land book, land book register and land register were developed side-by-side with the city book and the urban cadastre. It was only in 1985 when the Act on Cadastre (CA 392/1985) and the Decree on Cadastre (481/1985, repealed) combined these two registers. The validities, units to be entered to the register and information about the units that the registers had are more precisely presented in Appendix 1.

### 4.1.1 Land Book and Land Book Register

The first actual register related to land recording was the Land Book ("Maakirja") (Figure 4.2). It was established in 1524 in Vadstena at the instigation of King Gustaf Vasa (see e.g. Haataja 1949, p. 808; Hyvönen 1998, p. 138). The recording of homesteads was strongly connected to the creation of the taxation institution. The goal was to collect taxes more evenly and systematically. The earliest taxation was based on personal tax which meant that the peasant was

liable to pay tax but the basis for this tax was his land. (Haataja 1949, pp. 807-808; Hannikainen 1917, pp. 127-129)

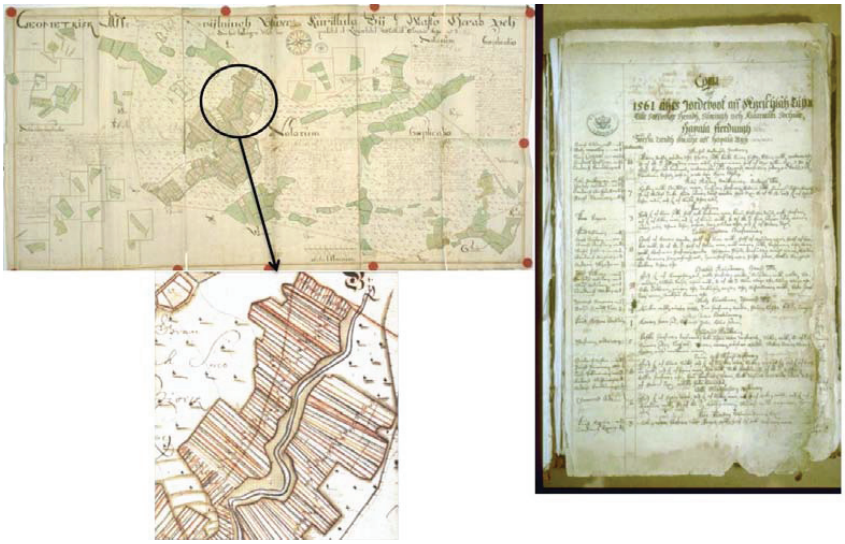

**Figure 4.2.** A land book and map from 1693, municipality of Masku, Kurittula village. The village had eight homesteads. (National Archives of Finland, No. A2b4)

The land book was a record of tax-liable land owners that also included a notification of their homesteads. The oldest Finnish Land Book was made in 1539 in Tavastia. In it can be found the homestead owners and some historical base for tax, "koukkuluku" and "jousiluku". It can be stated that originally, the purpose of recording land was to create a person-based tax roll. Little by little the role of land as a basis for tax became more prominent in the land book, and in the 1630s the land book was considered to be a record of tax liable homesteads. (Heikkilä 1983, p. 360)

In 1662[11] and 1689[12] new regulations were introduced for land book which meant that it became more focused on real properties, rather than persons. These regulations stated that the land book should include all units of homesteads, crofts under taxation, detached parcels and homesteads, independent mills, homesteads donated to cities as well as Crown meadows and islands (Appendix 1). The latter regulations stated that information about the units listed in the land book should include: the name of the village where the unit is located; the name of the unit; its residents; its nature from the point of view of taxes and possible Crown use; the size of the unit; calculated taxes; possible mills; possible yield of rapids; detached islands; fields and meadows separately; fisheries; seines and other units that were considered profitable for the unit and were under taxation. (Haataja 1949, p. 809; Heikkilä 1983, p. 363; Hyvönen 1998, p. 139)

[11] Regulations for County Bookkeepers (1662).

[12] Regulations for District Registrars (16.10.1689)

In the beginning, the land book was compiled every six years and after 1802 every ten years. For taxation purposes, the changes were to be collected in one extract each year. The last uniform regulations concerning the land book were provided in 1897[13] . The last land book was officially confirmed between 1906 and 1916. It lost its meaning as a register of real properties as the land register was completed, and as a tax roll as the land taxes ceased to exist. (Haataja 1949, p. 809; Heikkilä 1983, p. 363; Hyvönen 1998, p. 139)

The units in the land book were only whole homesteads and their taxes. There was a lack of information about subdivisions, possible benefits or usufructs, or other land surveying tasks conducted in the unit. Therefore, by regulations provided in 1812[14], every county was obligated to keep a land book register parallel to the land book. This register was to include every unit created in Basic Land Consolidations[15] and their areas divided according to land use into field areas, meadows, forest areas, waste land and water areas (Appendix 1). (Haataja 1949, p. 811-812; Heikkilä 1983, p. 365; Hyvönen 1998, p. 140)

Further regulations were given on the land book register in 1848[16] . According to them the land book register was also to be kept in the National Board of Survey in addition to the county's cadastral offices. It had to be maintained continuously and it had to include a notification of the place where minutes on which the register notes were based were held. The purpose of the land book register was to create a comprehensive record of land in addition to the land book. The lack of resources and incompleteness of Basic Land Consolidations were the reasons why this task was never completed. (Haataja 1949, p. 811-812; Heikkilä 1983, p. 365; Hyvönen 1998, p. 140)

### 4.1.2 Land Register

There was a need to develop the Land Book Register further and develop a new type of register which would also include information about titles and mortgages. This is why there was an initiative concerning these matters made by Principle Committee in 1886. In the same year the Legislative Council stated that it was indispensable to develop the land book register in order to accomplish a comprehensive record of homesteads. Regulations on the land register were introduced in 1895[17] and they required every county to keep arecord of all the homesteads located in their area. The information to be collected in the land register was (Appendix 1): the characteristics and nature of the units; their assessment units; area classified according to land use into cultivated area, arable land, forest, waste land and water areas; shares given in subdivisions; easements that were established in subdivisions; shares of joint

[13] Regulations on compiling the Land Book and carrying out archive research (18.1.1897).

[14] Regulations for the Heads of Provincial Cadastral Offices (14.11.1812).

[15] For more on the history of Finnish land reforms, see e.g. Hiironen 2012, p. 27-62; Haataja 1949.

[16] Regulations on Land Surveying, institutions for Land Division and Taxation and Stabilising Measurements for Length, Volume and Weight (15.5.1848).

[17] Decree on Dividing Real Properties (1895).

property units; and identification number corresponding to the archived documents. (Haataja 1949, pp. 813-815; Heikkilä 1983, p. 366)

Even if there was an entry in the land register, it did not create the right itself. The entry could only be based on a legal cadastral survey and its minutes. (Haataja 1949, p. 817) This means that if an entry concerning a right established in a legal cadastral survey was lacking in the land register, it was still a valid and existing right if it was mentioned in the minutes. This concerns easements, other types of use rights and special interests.

The first land register was based on the land book compiled in 1875. The purpose of this register was to clarify how the property structure is created. The land and water areas were separated. The entries in the land register were based on the assumption that all the land in rural districts belonged to some homestead or other units entered in the register. However, those areas which were not under taxation were left out of the land register. (Hannikainen 1917, p. 133)

### 4.1.3 City Book

Even before the land book there were registers of urban real properties in the city areas. The cities were administered autonomously as early as in the Middle Ages, and this was distinct from rural areas. This was based on the practice of the time, certain gained privileges and the City Law introduced in 1347[18] . This law regulated that a city should be divided into four blocks and these blocks further into plots. There were also regulations concerning other building and real property formation issues. The city book was maintained by city amanuensis, and this included information about land ownership and tenure, plot size and their location and taxes of plots and other property (Appendix 1). The recording of plots based on taxation seems to be transmitted from the Middle Ages, but information concerning boundary measurements and sizes were entered into the city book later, in the 17th century. They were often marked descriptions following maps. At that time the administrative courts of the biggest cities had begun to maintain records of plot measurements which may also have included plot maps. (Lappalainen 2002, p. 125; Sarsa 1983, p. 600-601)

There were several reprints of Magnus Eriksson's Landslag, which was in effect until 1734, when the new Building Code[19] and Land Code[20] were enacted. The Building Code regulated the registration of plots and stated that detailed plans should allocate the division of land into plots. In addition, buildings should be developed according to detailed plan. (Lappalainen 2002, p. 125)

### 4.1.4 Urban Cadastre

The 1796 Building Code for Stockholm regulated that all the information concerning plots should be entered into urban cadastre. At that time in Finland this

[18] Magnus Eriksson's Landslag (1347).

[19] Building Code (2/1734, mostly repealed but some chapters still valid).

[20] Land Code (1/1734, repealed).

information could still be found in the descriptive part of the city book. (Sarsa 1983, p. 607) The urban cadastre was created more precisely in the 19th century and they were based on previous records of plots. These urban cadastres varied a lot from town to town because they were based on each city's own building codes. It is unclear whether this urban cadastre was kept in all cities or not. The cadastre included information about owners, taxes, transactions and prices, for example (Appendix 1). (Koppinen 1983, p. 617)

The building code introduced in the Vaasa district in 1800 stated that the urban cadastre should include information about the identification of plots and blocks, their sizes and all the changes in this data. In 1823 a building code for twelve other towns was introduced, and its regulations were quite similar to the one given in Vaasa district. The overall information in the urban cadastre remained more or less the same until Finland gained independence (1917) but it became more detailed over time. At the end of 19th century, the number of the plot, boundary measures and areas were also to be entered into the urban cadastre. In some towns the urban cadastre also included information on whether the town had sold the plot and when. (Koppinen 1983, p. 367)

The basis for the development of a cadastral system in urban areas differed from the basis in rural areas. When the need for developing the cadastre in rural areas came from creating a functioning system for homesteads and villages and distributing land, the need for urban areas sprang from developing building techniques and developing land. A plot became a unit for building while the Building Code (2/1734) and Building Regulations (1856) included regulations on the detailed plan and on that building should be done according to it. After approving the detailed plan, plots were seen as real properties appropriate for building, titling and mortgaging, so there was no need for separate property formation. The measuring was only done to mark the boundaries and plots were recorded in the urban cadastre for guiding the building. Up to 1932, the urban cadastre was based on regulations in building codes. (GP 227/1994, p. 7)

The Act on Detailed Plan (145/1931) was introduced in 1931, which separated the planning and plot division processes from each other. After this Act came into force, there was no direct connection between the detailed plan and real property formation, but the plot was always to be measured and recorded in the urban cadastre in order for it to be valid for titling and mortgaging. (GP 227/1994, p. 7) At that time the Urban Cadastre consisted of four different records: a register of plots, a register of common areas, a record of plot formation and a record of common areas (Hyvönen 1998, p. 141).

Two more regulations[21];[22] which had an effect on the urban cadastre were enactede in the 1930s. These two acts included regulations on property formation and cadastre in urban areas at a non-specific level and for the first time measuring plots and the urban cadastre were regulated by law. At the same time, the land register was extended to towns and the system of property formation was divided into two: beyond the detailed plan the National Board of Survey was

[21] Act on Land Division, Plot Measuring and Registering Real Properties in Urban Areas (232/1931).

[22] Decree on Land Division, Plot Measuring and Registering Real Properties in Urban Areas (123/1936).

responsible for property formation and maintained land register, and in areas with a detailed plan the plot formation and urban cadastres were maintained by municipal surveyors. (GP 227/1994, p. 8; Lappalainen 2002, p. 14-15)

A new Act[23] was introduced in 1960 which regulated property formation in towns and rural municipalities with land use plans. Originally, a plot could be measured and created only in detailed planned areas in cities and should be entered into the urban cadastre. Detailed plans and plot divisions could also be made in rural municipalities, but in that case the plot was to be entered into the land register. In 1991 an amendment stated that all the plots that are formed according to detailed plans were formed as real properties. (GP 227/1994, p. 8; Hyvönen 2001, p. 187-188; Lappalainen 2002, p. 17)

A register of public areas was set up to respond to municipalities' own needs. An area could be registered as a public area if it was owned by the municipality or if it was legally moving under the ownership of the municipality. This register included information about the purpose of use, identification numbers, date of decision to register the area, and so on. (Hyvönen 2001, p. 198)

## 4.2 Registration and transfer of property rights throughout history

The handling of easements, commons and special interests in cadastral surveys has been varied throughout the years depending on each period's valid legislation and legal practice. The following paragraphs give an overview of how the rights have been transferred in cadastral surveys for dividing homesteads and real property units and in other cadastral surveys. The Real Property Formation Act of 1951 stated that a real property to be separated in cadastral survey was only entitled to have a share of commons and special interests, if the parties had agreed on it. The 1916 Act on Land Division took the opposite approach to this matter. There was a principle at that time that the real property to be separated was automatically given the shares of commons and special interests if the parties did not explicitly agree on something else. This led to a scattering of ownership of commons and impeded the functional use of these areas. (Pettinen 1983, p. 161)

### 4.2.1 Parcel system 1864–1926

There was a system concerning non-independent real properties, called parcels, during the period 1864–1926. A law concerning the parcels came into force in 1864 and it regulated the subdivision of parcels. According to it, the subdivision of parcels was possible but the land tax of the residual real property unit remained unchanged. The owner of the parcel was responsible for paying an amount of tax equivalent to the land tax that would have been paid to the owner of residual real property unit. (Hyvönen 1982, p. 673) The Decrees on Dividing

[23] Act on Property Division in Planning Areas (101/1960).

Real Properties introduced in 1864 (section 8), 1883 (section 8) and 1895 (section 11) stated that the parcels did not have the right of share of commons or interests that belonged to the residual real property, unless the cadastral survey proceedings or deed of transfer stated otherwise. (Hyvönen 1982, p. 674)

The existence of the parcel system became unnecessary when land tax was discontinued in 1924. After this, an Act on Changing the Parcels into Independent Real Properties was introduced (31.12.1926) that forbade the separation of parcels and former parcels were ordered to be formed as independent real properties. (Pettinen 1983, p. 158) After the discontinuation of the parcel system, the parcels were formed as independent real properties which kept their shares of commons and other interests the same as they were in the first place. (Hyvönen 1982, p. 674)

Section 32.2 of the Act on Land Division (later LDA 82/1916) introduced in 1917 states that the parcel has the right to a lake or common water area, unless the cadastral survey proceedings stated otherwise. From 1917 up to the discontinuation of parcel system, the parcel did not directly receive a share of the right for the residual real property's commons or interests. However, an exception to this principle could be made based on agreement between the parties. (Hyvönen 1982, p. 673-674; Viitanen & Mäenpää 1994, p. 83)

### 4.2.2 Subdivision legislation after 1917

The shares for commons and other interests of real properties which were separated before 1917 in a subdivision procedure are not unambiguous. The Decrees mentioned in the section above (from 1864, 1883 and 1895) only regulated the transfer of shares of commons and other interests for parcels, not actually subdivided real property units. Because of this, in the Finnish literature there have been several arguments both for and against the transfer of rights. Hyvönen (1982, p. 672-673) presents different interpretations of shares of commons and other interests of subdivided real property units. There are two main opinions, positive and negative.

According to the positive opinion, a subdivided real property unit has a share of commons or other interests unless it has been expressly denied in the deed of transfer or for some other specific reason. According to the negative opinion a subdivided real property unit has no share of commons or other interests, unless the deed of transfer has particularly decreed that. Hyvönen (1982, p. 672-673) discovered that the positive opinion is dominant when examining the subdivided real property units formed between 1896 and 1916. The shares of commons and other interests of subdivided real property units which have been formed before 1896 are more open to various interpretations. Hyvönen (1982, p. 672-673) agrees with Wirilander (1972, p. 206-208) that the subdivided real properties that were formed before 1896 have received a share of commons and other interests, whilst Viitanen and Mäenpää (1994, p. 83) and Vitikainen (2011, p. 69) are support the negative opinion.

The LDA 82/1916 was in force from 1.1.1917 to 31.12.1952 and stated that the real property unit which was formed in a subdivision procedure also receives the shares of commons and other interests, unless the deed of transfer or proceedings state otherwise. This means that even if a deed of transfer did not have a reference of the transfer of shares, the new real property would still have the right of the shares *ipso jure*. This also means that if the transfer of shares was not covered in the subdivision proceedings, they have been transferred as well *ipso jure* with the new real property unit(s). Also, according to LDA 82/1916 section 34.1 the subdivided property unit had the right to receive a share corresponding to their share value of a special interest belonging to residual property unit, even if the special interest was private (belonging to only one real property). (Hyvönen 1982, p. 671; Viitanen & Mäenpää 1994, p. 83-84; Vitikainen 2011, p. 69)

### 4.2.3 Later legislation

According to the 1952 Subdivision Act (later SA 604/1951), a subdivided real property unit received a share of commons and special interests if the parties agreed on it. (SA 604/1951, section 191.3; Decree on Subdivision 407/1952, section 107). This statute also remains in the current real property formation act. (RPFA 554/1995, section 150.2)

Finnish legislation for settlement activities has been diverse, and between 1918 and 1977 several different acts of settlement were enacted. Real properties formed in different times according to the settlement acts have received the shares of commons and other interests according to each time's valid legislation and decisions made in cadastral surveys. In the main, it can be said that acquisition based on compulsory means and real property formation following it concerns only the areas, shares and interests which the compulsory acquisition contains. If the acquisition was based on voluntary conveyance, the real property formation following it was made according to the general real property formation act as for shares of commons and interests. (Hyvönen 1982, p. 674; Viitanen & Mäenpää 1994, p. 84-86; Vitikainen 2011, p. 70-71)

## 4.3 Cadastral information today

The Finnish cadastral system is based on the German model (see section 2.2 "Western cadastral types") where the cadastre and land register complement each other and create a unified entity. Both registers have a unified identification number for a register unit which makes it simple to view all the rights concerning one register unit in one query. Ownership rights are recorded based on titles. In addition, the cadastral map is part of the cadastral system.

In Finland, the cadastral system consists of a real property register (cadastre), a map related to it (cadastral map) and a title and mortgage register (land register). The maintenance of these registers is the National Land Survey's (NLS)

responsibility. The whole country is divided into basic property units, which may consist of one or several parcels. All the basic property units have a unique identifier. The main objects of the Finnish cadastral system are basic property units, parcels, their boundaries and right-of-use units. (Myllymäki & Pykälä 2011, p. 2)

In order to secure property rights, they must be registered in a cadastral system or a corresponding register system. In Finland the property rights are entered into a cadastral system's cadastre or title and mortgage register. One option for classifying the property rights is based on the place of registration. Data other than person-to-property rights are is registered in the cadastre and person-to-property rights in the cadastre or the land register. This classification, however, is rather rough and we will find out that there are differences in the nature of those rights which are other than personal. To clarify and classify the differences between these rights a more specific classification system is needed.

### 4.3.1 Cadastral part

Information to be entered into the cadastre is regulated by the Act on Cadastre (CA 392/1985) and the Decree on Cadastre (CD 970/1996). According to section 7 of the CA (392/1985) the following information should be entered into the cadastre:

1) Name of municipality, village, local district or other corresponding area in which the register unit is located, and if the register unit has a name, it should also be entered into the register, as well as the quarter to which the register unit belongs.
2) In addition, the registration date, area, type, easements, shares of joint property units and other information that is further regulated by Decree (970/1996) should be entered in the register.

Section 6 of the CD (970/1996) regulates that in addition to the information required in section 7 of the CA (392/1985) the following should also be entered into the cadastre with regard to each register unit:

1) Former identification number or identification numbers of those register units from which the current register unit is formed,
2) Identification numbers of those unseparated parcels from which the current register unit is formed (partly or totally),
3) Identification of those unseparated parcels of jointly owned areas from which the current register unit is formed or which have become part of the current register unit,
4) Unseparated parcels and shares of joint property units that have been transacted further,
5) Action that concerns the formation or change of the register unit,
6) Identification number in cadastral survey if it did not conform for some reason,

7) Entry of the residual property unit meant in the RPFA (554/1995) section 21.2 or 226.1.,
8) Special interests and shares of special interests,
9) Identification numbers of those jointly owned areas of which the register unit has a share, as well as the size of the share if it has been decided in a cadastral survey,
10) Those real property units that have a share of a jointly owned area and the size of the shares if they have been decided in a cadastral survey or if registering the shares is essential for maintaining a temporary record of shareholders,
11) Total area of the register unit and separately areas of land and water area, but not in cases where the register unit is a plot or common area,
12) Use rights and restrictions of use rights that may be seen as parallel to easements and that are established in a cadastral survey,
13) Validity of easements and rights mentioned in the previous item unless they are permanent, and other information concerning easements, rights and restrictions when needed,
14) Areas whose boundaries are decided according to sections 11 or 51.2 of the Decree on Fishing (1116/1982),
15) Boundary of outer archipelago when decided in the cadastral survey mentioned in section 124 of the Fishing Act (286/1982),
16) Other information produced by a cadastral authority according to other legislation.

According to section 7 of the CD (970/1996) there is also other information besides section 6 that shall be entered into the cadastre concerning a certain real property or register unit:

1) if a register unit or a part of it is located in an area of a legally effective master plan,
2) if a register unit or a part of it is located in an area of effective detailed plan,
3) if a register unit is a plot or public area, and its purpose of use is indicated in the detailed plan,
4) if a register unit is located in an area of a detailed plan and is not of the types of register units mentioned in item 3, and its purpose of use is indicated in the detailed plan at the time the register unit was formed,
5) if a register unit or a part of it is located in an area of building prohibition mentioned in the LUBA (132/1999) section 53,
6) if a register unit is a plot and there is a separate plot division concerning it, and
7) other information as indicated in legislation.

### 4.3.2 Cadastral map

The cadastral map is a part of the Finnish cadastre. According to section 14 of the CA (392/1985), the spatial information should be in a format so that the property division may be printed out on a map. The information included in the cadastral map is also regulated also by section 10 of the CD (970/1996).

The cadastral map shall indicate the boundaries and boundary marks of real properties and other registered units in the cadastre. In addition, the identification number of a real property or other register unit shall be indicated on the map. The identification number is the same as in the cadastre or title and mortgage register. If there is an unseparated parcel on a real property, its own identification number shall be indicated on the map along with its location (which is received from the title). The cadastral map also indicates all the easements, use rights and restrictions which are registered into the cadastre. The boundary of the outer archipelago as well as the boundaries of the legally effective master plan, the legally effective detailed plan and building prohibitions shall be marked on the cadastral map (CD 970/1996, section 10).

Since the legislation requires that only those use rights, easements and restrictions that are already entered into the cadastre shall also be indicated on the cadastral map, there might be some deficiences. Not all of the use rights, easements and restrictions are registered in the cadastre. These deficiences are traced to different practices in registering rights. There might also be some inaccuracy in the location information since the coordinates of many boundary marks are still missing. (Vitikainen 2013, p. 70)

### 4.3.3 Land register

The land register (in Finland, the title and mortgage register) is a record of rights concerning real properties. All the rights are recorded in it, besides those easements and other types of use rights that are registered in the cadastre. This register was maintained by district courts until the end of 2009. From the beginning of 2010 the responsibility for maintaining the land register was transferred to the NLS (LC 540/1995 section 5.1).

The register includes (as its name suggests) ownership rights and mortgages. But there are also other rights that should be entered into this register, which are called special rights (“erityinen oikeus”) and other personal use rights. The entry of these three classes of rights into the land register is called the process of recording. (NLS 2014c, p. 1)

The Finnish land register has full negative and positive faith and credit. This amendment was added to the new Land Code (540/1996) which on its part renewed the whole system of registration. Faith and credit of a register means that it protects the collateral. A third party is able to trust that the rights in the register exist (positive) and on the other hand that there are no rights besides those registered in the title and mortgage register (negative). (Kartio 1996, p. 126-127)

Person-to-property rights regulated in the LC (540/1995) are registered in the title and mortgage register according to applications. According to section 6 of the Decree on Title and Mortgage Register (960/1996), the following

information shall be entered into the register: the holder of person-to-property right; the nature of the right or of the agreement to be registered, its general contents and the terms of registration, the date of the agreement or other charter, the object, and precedence.

The holder of the person-to-property right (the subject of the right) is a person, which may be natural person or a legal person (company, municipality, etc.). The application for registration needs to be written, but a verbal application is also approved in cases where the documents clearly show the content of the right. In practice, this kind of situation is relevant when registering or moving a lease and the registration is comparable to a simple case of titling. (NLS 2014c, p. 218) In order to receive an affirmative decision on registration, the subject (who applies for the registration) needs to have a title for a real property or unseparated parcel or that the subject is registered to hold the person-to-property right. (Jokela et al. 2010, p. 371)

The nature of the right is also registered. According to section 1, chapter 14 of the LC (540/1995), the person-to-property rights are lease or other usufruct, right to traditional life annuity, right to take timber and right to extract land or minerals or other right comparable to this. In practice, the types of rights to be registered are various and for example in cases of leasing a whole plot, there is no need to register the content of the agreement – the lease agreement and its date are sufficient. (NLS 2014c, p. 219)

The object of person-to-property right in the Finnish context according to section 6, chapter 14 of the LC (540/1995) is a real property or a common area. It may also be an unseparated parcel in cases where the title for the parcel has been granted. The object may also be a use right, if the right has been registered according to Land Code (this means it may be a person-to-property right, not a property-to-property right). The ownership of certain types of real properties (see section 3.2 “Different types of real property units and other property units”) is not registered as a title. These properties may, however, be the object of a person-to-property right. It is not possible to gain a title for a common area, so in cases where a common area is the object of a person-to-property right, the ownership right has to be proven in some other way. (Jokela et al. 2010, p. 371)

The precedence of a registered person-to-property right determines the security of the right in a foreclosure situation. The legal effect of registration of person-to-property right begins on the day the application for registration has been pending and usually the precedence is determined according to the application date. In the case of two applications, the former application gains precedence over the latter. If the two applications are dated on the same day, they gain equal precedence. There are some exceptions; some person-to-property rights may be registered only as first precedence. An example of these person-to-property rights is the agreement of divided occupancy in a real property. (Jokela et al. 2010, p. 388-389)

## 4.4 The system of base registers

A base register is an information system that specifies and represents the basic features in society, which are natural persons, communities, buildings and real properties. The entity of these registers creates a system of base registers. The base registers in Finnish society are presented in Figure 4.3. Natural persons are specified in the population register's person record, communities in trade register, association register, business identification code register and register of enterprises and establishments. The system of building information consists of registers of buildings and dwellings maintained by the Population Register Centre (PRC) and by municipalities. The land information system consists of a cadastre and a land register. (Hyvönen 1998, p. 145-146; Karimaa 2001, p. 14-15)

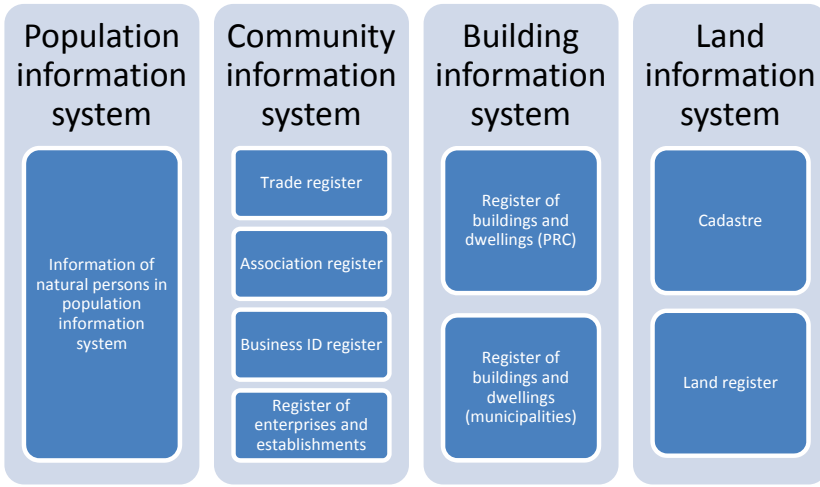


**Figure 4.3.** The base registers in Finland (Karimaa 2001, p. 14-15)

What is characteristic for these base registers is their social significance, coverage, connection of registration numbers, harmony, usability, data security and some other factors that may vary. According to Hyvönen (1998, p. 146), the characteristics are coverage and reliability. Coverage means that the register includes all the register units and their official identifications. Reliability is based on the fact that it is the authorities' responsibility to maintain the registers. (Hyvönen 1998, p. 146; MI 2006, p. 26)

The PRC maintains the population information system. Its personal information specifies the natural persons. A community information system consists of registers maintained by three authorities: the trade register and the association register are maintained by the National Board of Patents and Registration of Finland, the business ID register is maintained by the tax authority, and the register of enterprises and establishments is maintained by Statistics Finland. The building information system specifies the information concerning buildings. It consists of the register of buildings and dwellings maintained by each

municipality, and information in this register is copied to the register of buildings and dwellings maintained by the PRC. Since the start of 2010, the whole land information system has been maintained by the NLS and the system consists of the cadastre and the land register. (Hyvönen 1998, p. 146-148)

Figure 4.4 shows the integration and connections between Finnish base registers. In the next few paragraphs I will shortly present the basic units and connections between the base registers and identification numbers connecting the units in the registers.

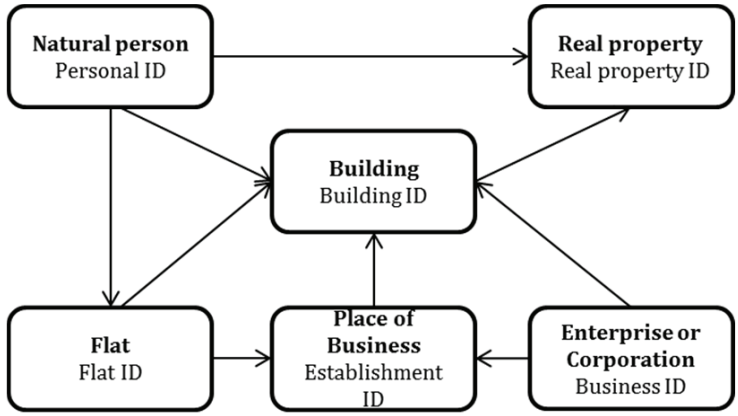


**Figure 4.4.** Integration of the base registers. (Kokkonen 2004)

The basic units in the cadastre are real properties and other register units defined in section 2 of the Act on Cadastre (392/1985); see section 3.2 “Different types of real properties and other property units”. The information to be entered in this register concerns the physical and judicial dimension of the real property, meaning both the information concerning its location as well as information concerning property rights. The connections in the register of a basic unit concern its legal status and changes in it, in other words ownership rights, mortgages and other encumbrances. The identification number for a basic property unit is the real property unit identification number, which consists of municipality number, village number, house group or city block number and the actual number of the basic unit. (Hyvönen 1998, p. 147; Kokkonen 2004; Vitikainen 2013, p. 84)

The basic unit in the population information system is a natural person. The characteristics to be entered in this register are sex and mother tongue. The connections to be entered are nationality, place of domicile, apartment, membership of parish or religious group, parents, custody and marital status, and possible changes to these. The data used to identify a person is date of birth, identity number and first and last name. The population information register creates the basis for the population information system. The connection between a person and place of domicile is created through dwelling and building

identification (see Figure 4.4). (Hyvönen 1998, p. 146-147; Vitikainen 2013, p. 84)

A basic unit in building a register is a building, and the information to be registered is purpose of use, material, equipment, volume, fire protection, number of floors, apartments and other corresponding spaces. Connections in a building register are created through belonging to a real property, ownership and tenure and changes in them. The identification number of a building is created by real property ID and number of the building. (Hyvönen 1998, p. 146-147)

The basic unit of enterprise or corporation register is a business or some other community (association, foundation, etc.). The information to be registered is field and form of business, language, revenue, personnel and places of business. The connections are created through connections to post, Internet, etc., premises, and ownership and tenure and their changes. The place of business is located with the coordinates of the building that the premises are located in. The identification data of a business is business ID and name. (Hyvönen 1998, p. 147)

## 4.5 Development needs and projects

### 4.5.1 The fundamental improvement work of the Finnish cadastre

The National Land Survey of Finland (NLS) has detected 17 different entities of tasks that the fundamental improvement of Finnish cadastre includes (Table 4.1). In Table 4.1, each district survey office[24] estimated how much fundamental improvement work divided into subcategories they have left to do, measured in person-years. The improvement work that remains to be done is presented at the beginning of 2003 and 2011 in person-years. The table also presents the estimated need for different tasks in 2011, also in person-years. The coefficient is calculated based on the estimated needs in 2003 (the higher the need, the higher the coefficient). The percentage figure in the right column describes the estimate of the amount of work the district survey offices have done up to 2011 compared to the situation in 2003. (Lukkarinen 2012)

**Table 4.1.** The fundamental improvement needs of the cadastre (Lukkarinen 2012)

| Task | Coefficient | Work that remains to be done | | | % |
|---|---|---|---|---|---|
| | | 1.1.2003, person-years | 1.1.2011, person-years | Estimated need for 2011, person-years | |
| 1. Registering of unregistered cadastral surveys | 1.4 | 19.5 | 0 | 0 | 100 |
| 2. Clarification of unclear parcels | 6.5 | 92.8 | 27.5 | 4.8 | 75.5 |

[24] District survey offices ceased to exist from the beginning of 2014 as NLS executed organisational changes. When Table 4.1 was compiled (2011), there were 12 district survey offices.

| | | | | | |
|---|---|---|---|---|---|
| 3. Registering common roads conveyanced to the municipality under a different group of register units | 0.5 | 7.7 | 0.1 | 0.1 | 100 |
| 4. Registering unregistered accessory areas | 0.8 | 11.7 | 0 | 0 | 100 |
| 5. Areas | 12.5 | 177.8 | 105.4 | 10.4 | 46.5 |
| 6. Water law villages' registers of shareholders | 8.7 | 123.7 | 3 | 1.4 | 97.8 |
| 7. Register of shareholders of other common areas than those mentioned 6. | 32 | 457.2 | 154.5 | 33.6 | 76.4 |
| - 7a) Creating the register of shareholders and registering it at least temporarly | | 22123* | 4989* | | |
| - 7b) Verification of register of shareholders (in cadastral survey or without it) | | 25167* | 13118* | | |
| 8. Registering building prohibitions set by plans as use right units | 2.6 | 37.5 | 0 | 0 | 100 |
| 9. Registering conservation areas and natural monuments established before the new Nature Conservation Act as use right units | 0.6 | 8.1 | 0 | 0 | 100 |
| 10. Registering decisions made according to Water Act as use right units | 0.8 | 10.9 | 0.1 | 0 | 99.0 |
| 11. Correcting errors and deficiences in the cadastre | 4.2 | 59.4 | 12 | 6.5 | 90.8 |
| 12. Registering private roads managed by private road maintenance association as use right units | 10.9 | 155.9 | 0.9 | 0.6 | 100 |
| 13. Clarifying the status of other private roads than those mentioned in issue 12. | | | | | |
| 14. Registering mining patents as use right units | 0.3 | 4.2 | 0 | 0 | 100 |
| 15. Clarifying detached relictions | 1.3 | 18.4 | 16.2 | 1.1 | 18.0 |
| 16. Clarifying special interests established in cadastral surveys | 0.5 | 6.8 | 2.5 | 0 | 63.3 |
| 17. Registering easements as use right units | 16.6 | 236.4 | 144.9 | 40.4 | 55.5 |

*Note: tasks *7a Making the register of shareholders and registering it at least temporarily* and *7b Verification of register of shareholders (in cadastral survey or without it* are estimated in numbers, not in person-years.

NLS has defined the needed improvement work as follows:

1) Registering unregistered cadastral surveys. It seems that there are no further completed cadastral surveys that have been systematically left out of the cadastre.
2) Clarification of unclear parcels. Around three-quarters of the unclear parcels have been resolved.
3) Registering common roads that have been transferred under municipalities' ownership under a different register unit number. Almost all the work has been completed.
4) Registering unregistered accessory areas. Accessory areas are connected to roads, etc. All the registering work is completed.
5) Areas. One of the most commonly unfinished work concerns areas that are missing from the register. There is also a tolerance for registered areas compared to the actual areas of a real property. If this tolerance limit is exceeded, the areas need to be corrected. The amount of working hours needed is based on the number of register units that need to be corrected.
6) Water law villages' registers of shareholders. Up to the present day, most of the registers of shareholders of water law villages have been probated and the boundaries clarified. There is still some work to be done. The amount of working hours needed is based on the number of joint areas.
7) The register of shareholders of common areas other than those mentioned in issue 6. There are also other jointly owned areas whose registers of shareholders are not yet probated. These registers should be made and registered at least temporarily. After the registers are made they shall be verified and registered, with or without a cadastral survey.
8) Registering building prohibitions set by plans as use right units[25]. According to NLS this work has been completed.
9) Registering conservation areas and natural monuments established before the new Nature Conservation Act (1096/1996) as use right units. This work has been completed.
10) Registering decisions made according to the Water Act (264/1961, repealed) as use right units. Almost all the work has been completed.
11) Correcting errors and deficiences in the real property register. These corrections concern only those errors and deficiences that are on the

[25] New easements are registered as use right units with spatial data information. If the spatial data is not available it is also possible to register the use right unit without spatial data. (NLS 2014d, p. 15)

record. Approximately ten percent of the corrections are still to be done.

12) Registering private roads managed by private road maintenance associations as use right units. It is possible to establish a road maintenance association for a private road to take care of it. These kinds of private roads shall be registered as use right units, not easements.

13) Clarifying the status of other private roads than those mentioned in issue 12. The status of these roads will be clarified in an official decision-making process, but this task is still waiting for the legislation to be changed.

14) Registering mining patents as use right units. This work is complete.

15) Clarifying detached relictions. This is an issue that causes a lot of work for the NLS. By 2011 only 18 per cent of the required work had been done.

16) Clarifying special interests established in cadastral surveys. This work is based on the number of special interests entered into the cadastre. If we look at the numbers by each district cadastral office it can be seen the only offices that have stated that there is outstanding work are those in Southern Finland and North Karelia. However, this is inconsistent with the research that has been done among the real property register and the JAKO system, which showed that the only registered special interests can be found in the Lapland and Northern Ostrobothnia offices.

17) Registering easements as use right units. All the new easements are already being registered as use right units to clarify the cadastre; this task concerns the existing easements that are registered as such. According to the NLS they will also be registered as use right units.

### 4.5.2 Availability of cadastral data in the future in Finland

Rummukainen (2010, p. 122-127) developed a model of the future Finnish cadastre and cadastral information. In her research she also studied the information available in the present Finnish cadastral system and as explored and classified the information left outside the scope of the registers. In her dissertation Rummukainen provides development proposals for improving the cadastral system by registering property rights established by legal actions in the cadastre. The basis of this study is that the registration of easements and other rights follows obligations to use a certain form. In addition to this, information concerning property rights is scattered across different registers. As a result of the study, the main proposals for improvement activities are:

1. removing the obligation to use a certain form when registering the rights, and
   a. connecting the validation of rights with registration, or
   b. starting to use e-conveyance in every legal-based property right transfer and enacting that conveyance will automatically begin the *lis pendens* of a registration process, or
   c. using a public purchase witness in every legal-based property right transfer and combining the *lis pendens* of the registration process with the announcement of conveyance or real property.

Rummukainen (2010, p. 119) mentions, however, that the actions listed above would need a fundamental improvement in Finnish legislation. Some partial improvements can be carried out by:

2. enacting all the legal-based property rights to be mandatorily registered
3. enacting all the registrable rights to be mandatorily registered
4. starting to use e-conveyance in every legal-based property right transfer and enacting that conveyance will automatically begin the *lis pendens* of the registration process
5. using a public purchase witness in every legal-based property right transfer and combining the *lis pendens* of the registration process with the announcement of conveyance or real property
6. collecting this information in one data base from different sources.
   (Rummukainen 2010, p. 119-120)

Ultimately, there would not be any changes to using a certain form when registering the rights. Different pieces of information associated with real properties are presented in Figure 4.5. Part of the cadastral system associated directly with real property units (LISrp) would include the basic information about a real property unit and this information would be amplified by descriptive data (DD). (Rummukainen 2010, p. 124)

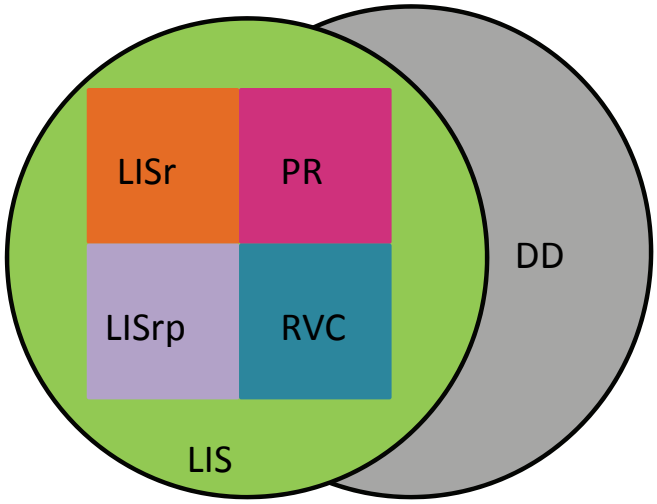


Figure 4.5 Model for information in a future Finnish cadastral system (Rummukainen 2010, p. 123) In this model

LISrp = part of the cadastral system associated directly to real property units
LISr = part of the cadastral system associated to registration
DD = descriptive data
PR = public restrictions
RVS = rights and restrictions based on voluntary contracts
LIS = land information system

The part associated directly with real property units in a future Finnish cadastral system would also include the registration part, public restrictions, and rights and restrictions based on voluntary contracts. Data in the registration part would be registration issues, claims, titles, obligations and compensations. The part associated with real property units would include data about easements, special interests and other use rights. The restrictions are public restrictions on land use, which include information about conservation, land use and planning, waterways and district supervision. Rights and restrictions based on voluntary contracts would be environmental aid and natural values trading contracts made according to the Act on the Financing of Sustainable Forestry (1094/1996), and temporary protection order contracts made according to the Nature Conservation Act (1096/1996). This group would also include some agreements associated with building. (Rummukainen, 2010, p. 123-126)

# 5 Towards a FI country profile

This chapter creates a basis for developing the Land Administration Domain Model (LADM) country profile for an administrative package for Finland. Special attention has been paid to introducing the land-related rights according to the Legal Cadastral Domain Model (LCDM) introduced by Paasch (for a more detailed description, see section 1.5.5 "Legal Cadastral Domain Model" and Paasch 2012a). First, property-to-property rights in the Finnish system are introduced, then commons, person-to-property rights, latent rights and lien. Each right type includes a definition framed by Paasch (2012a) which is then compared to Finnish definitions framed in this study.

## 5.1 Property-to-property rights

A property-to-property right is a right that is executed by a property in an area of another property (Paasch 2008, p. 124). Finnish legislation and practice basically recognise three main groups of property-to-property rights. They are easements, rights which are similar to easements, and special interests. The international characteristics of property-to-property rights are compared with Finnish corresponding rights in Table 5.1.

**Table 5.1** Definition and characteristics of property-to-property rights in the international (Paasch 2008, p. 124) and Finnish contexts.

| **Class name** | **Object** | **Characteristics (international) (Paasch, 2008 p. 124)** | **Characteristics (Finland, easement and similar rights)** | **Characteristics (Finland, special interests)** |
|---|---|---|---|---|
| Property-to-property right | Connection between two or more real properties | • Right executed by the owner of a (i.e. dominant) real property in another (i.e. servient real property)<br>• Right executed on the whole real property or part of a real property<br>• The right is transferred together with the real property when the property is sold or otherwise transferred<br>• The right can be beneficial or encumbering to ownership | •Right executed by the owner(s) of a real property(/-ies) in another real property<br>•In some cases the right may be established for the municipality<br>•The right is transferred together with the real property when the property is sold or otherwise transferred<br>•The right can be beneficial or encumbering to ownership<br>•Easements based on *numerus clausus* principle<br>•Registered as easements or use right units in the cadastre | •Right executed by the owner(s) of a real property(/-ies) in another real property<br>•The right may be transferred together with the real property when the real property is sold or otherwise transferred<br>•New rights cannot be established<br>•Right is based on immemorial possession or authority's decision<br>•The right can be beneficial or encumbering to ownership<br>•The right may be registered as a use right unit in the cadastre |
| Definition: Property-to-property right is a right executed by real properties in an area of another real property and is registered as an easement or use right unit or special interest in the cadastre. | | | | |

Since there are some differences between the Finnish property-to-property rights, it is reasonable to examine the concepts of easement and similar right and special interest separately. These two main groups are presented in separate columns in Table 5.1 due to their slightly different characteristics. However, as the following sections will show, they all belong to the LCDM classification in the group of "property-to-property rights".

A property-to-property right is typically a permanent right which has been established to serve another real property (not a person) and it has been established in a cadastral survey or by official decision. (Jokela et al. 2010, p. 343) There are exceptions to the above-mentioned characteristics. A property-to-property right may also be a terminable right, and it may not have been established in a cadastral survey or by an official decision when the right is based on immemorial possession. Also in certain cases the right may be established to serve a municipality (see section 5.1.1.2. "Easements according to Real Property Formation Act").

### 5.1.1 Easements

The concept of easement is not defined in Finnish legislation. Currently, easements may be established according to three different acts: the Real Property Formation Act (RPFA 554/1995), the Land Use and Building Act (LUBA 132/1999) and the Fishing Act (later FA 286/1982). Wirilander (1994, p. 688) defines easement as land use regulation that is put into force in serving the property unit's area to promote the use or other permanent activity of the dominant real property unit. In Finnish literature the concepts of easement and the right of easement are kept separate. By right of easement we mean the legal status of the easement holder. Easement itself expresses the legal basis. (Wirilander 1994, p. 689; Wirilander 1979, p. 65)

Hollo (1980, p. 18-19) defines the concept of right of easement to be a right whose owner has the right to use or rule the use of the object area of the easement. In GP (227/1994, p. 56), easement is defined as such a use right whose object is a real property unit and by which the initial attempt is to promote the appropriate use of the dominant property unit.

Wirilander (1979, p. 193) mentions that as early as at the turn of the 18th and 19th century Calonius recognised four characteristics for easements: an easement is a benefit for one party but at the same time a restriction for another party; an easement is a property-based right whose object is always property, not person; the object of the right of easement is always another party's property, one cannot have an easement right to his own property; and an easement cannot be established unless it benefits the dominant real property somehow.

According to Noponen (1932, p. 1), a real property easement is a limited property right that is related to some real property unit and is established for the appropriate use of this real property unit and whose object is another property unit. Easement may be defined positively or negatively. According to the positive definition, the owner of the dominant real property has the right to

use another real property unit in a manner that he/she as a real property owner would not be allowed to, or has the right to prohibit the owner of the servant real property unit to use his/her real property unit in a manner that he/she would otherwise be entitled to. According to the negative definition, easement is a right based on which the owner of the servant real property unit is responsible for allowing the actions of the owner of the dominant real property unit. (Hyvönen 2001, p. 508; Noponen 1932, p. 1) In Finnish legislation, easements and similar kinds of rights are mainly defined in a positive manner, the only exception is the obligation to tolerate, which is included in the Adjoining Properties Act (later APA 26/1920).

A notable issue when studying Finnish easements is the *numerus clausus* principle, or the obligation to use certain form. As a result of a Decree introduced in 1895, it has only been possible to establish those kinds of easements whose purpose and preconditions are defined in the legislation of each period. When studying easements and their characteristics we can study their content, subject, object, legal basis, existence, validity and type (Wirilander 1979, p. 10).

The content of an easement may be positive or negative, so it concerns either the rule of the dominant real property unit or the obligations of the servant real property unit. As a subject point of view we talk about differences between real property easement and personal easement. In this case real property easement is related to the dominant real property unit and in Finland it is seen as an actual part of the real property dimensions. As for personal easement, it serves the needs of some specific person and is limited to this person's lifetime or other limited time. An object of the easement is the servant real property or other property unit. The legal basis means the way of establishing the easement. (Wirilander 1979, p. 10)

Wirilander (1979, p. 17; 63) defines three possible ways to establish an easement: a contract between parties or other legal action, on order of authority and immemorial possession. Hyvönen (2001, p. 508-509) also notes that possession might have a legal basis which is broader than simply immemorial. Easement is a permanent part of real property unit which means that if the object of easement is transferred to another owner, the easement still stays valid. For practical reasons the easements should be registered if we want them to be transferred as well. (Hyvönen 2001, p. 508-509; Noponen 1933, p. 185-186; Wirilander 1979, p. 17; 63)

In this research, by easement I mean a right that is established for a real property in an area of another real property. It is established based on national legislation and the *numerus clausus* principle and is a part of a real property.

*The principles of easements*

The Finnish legal system is based on the Roman-German legal family. Also the concept of easement is a heritage of this legal family which leads to the use of Latin terms when describing the historical principles of easements. The concept of easement was widely recognised in the Roman legal system, from which it has been transmitted to European legal systems and according to Hyvönen (2001, p. 511) can be found in all known legal systems. The knowledge of the principles

helps to differentiate between the substantial and less important issues. In this research the term *"servitut"* is considered to be a synonym for easement and it describes the relationship between servant and dominant real properties. (Tyni 2009, p. 25)

The establishment and registration of easements is limited by law of property obligation to use a certain form, *numerus clausus*. In practice this obligation means that the contracting parties are allowed to establish only those kinds of easements that are listed in the legislation. It should be noted, however, that in the Finnish cadastral system, rights similar to easements which are not actual easements are also considered to feature real property. (GP 227/1994, section 1.2). Similarly, the *numerus clausus* principle is not applied for special interests or common areas. Other types of use rights than easements have been possible to establish in legal cadastral surveys ignoring the *numerus clausus* principle. (Rummukainen 2010, p. 79)

The *libertas domini* principle is used to describe the principle of free land in expansive interpretation in establishing easements. This means that the easement to be established may not cause more unreasonable harm than is necessary for the purpose of establishing the easement. (Tyni 2009, p. 25-26)

The servant property shall not be encumbered more than is necessary and the use of the easement must be organised in a way that causes least harm. This is the content of the *civiliter uti* principle. (Tyni 2009, p. 25-26).

The *perpetua causa* principle means the permanence of the easement. As a rule the easements are established as permanent rights, but Finnish legislation also enables the establishment of a terminable easement in some cases. Easements may also be changed and removed. (Tyni 2009, p. 26) In addition, the special interests and common rights follow the *perpetua causa* principle.

Easement is always established to benefit the normal use of the dominant real property. This is the content of the *utilitas fundo* principle. (Tyni 2009, p. 26) Special interests push this principle even further, since it can be defined that they are established for some economic benefit for the dominant real property.

An exception to the *facere* principle may be made only on a legal basis. According to this principle the easement causes the responsibility of allowance or giving up some activity for the encumbered real property. An exception to this is for example the section 158.2 of the RPFA, which allows the owner of the encumbered real property to be obligated to take part in the maintenance of the easement. (Hyvönen 2001, p. 510; Tyni 2009, p. 26)

The *vicinitas* principle is related to the meaning of easement in terms of arranging neighbourhood relationships from the perspective of property law. The location of servant and dominant real properties will indicate the justified use of the easement. They do not, however, need to be located next to each other. (Hyvönen 2001, p. 510; Scott 2008; Tyni 2009, p. 26)

The Roman legal system did not make a distinction between the contents of easement and other use right. They created a unified bundle of rights whose object was a property and whose ownership had been transferred to someone other than the owner of the property. They were immaterial rights that were later divided into personal and real property rights. (Tyni 2009, p. 26-27)

A similar kind of division is used in the Finnish cadastral system, where the easements and other rights similar to them are seen as part of a real property and can be registered into the cadastre, whereas rights according to the LC 540/1995 are person-to-property rights that can be registered into the land register according to the status of chapter 14 of the LC 540/1995.

*Easements according to the Real Property Formation Act (554/1995)*
The easements that are possible to establish according to the RPFA (554/1995) are regulated in sections 154-154a. According to the law, easements are permanent rights and they may be established in an area of another real property unit (RPFA section 154):

1) to take household water,
2) to conduct household water or to place and use the equipment and structures connected to it,
3) to conduct water for the drainage of the land,
4) to place and use the equipment and structures connected with sewage handling,
5) to place and use the equipment and structures connected with telephone, electricity, gas, heating and other such cables and wiring,
6) to use an area necessary for keeping private cars or as a boat harbour, dock, swimming place, timber storage bay, loading area, and in an area with detailed plan, common yard area,
7) to use an area necessary for fishing,
8) to quarry rock, gravel, sand, clay, turf, or other equivalent soil,
9) to establish and use structures necessary for civil defence,
10) to establish and use a common heating plant or a waste collection site for real property, and
11) to create an area necessary for access purposes in an area covered by a detailed plan.

If a dominant real property is located in an area of shoreline detailed plan and needs a right to use a joint use area (LUBA 132/1999, section 75), it shall be established as an easement. However, a right of way to such an area may not be established as an easement. The right to use is established to serve all the real properties, to whose use the joint use area has been indicated. (RPFA 554/1995 section 154a)

In addition to permanent easement, it also possible to establish an easement for a limited time if it is reasonable for known future changes in circumstances or other justified reason. In this case, the time when this easement expires must be defined in a legal cadastral. (RPFA 554/1995 section 154 §)

According to the RPFA (554/1995), these easements are defined positively. A subject is defined as a real property unit according to section 154.1. The possible different types of real property units are listed in section 3.2 “Different types of real property units and other property units”. In some cases the subject may also be a municipality. A municipality may act as a subject of the easement if the area is located in a detailed planned area and the easement to be established is one of numbers 1-5, 9 or 11 in the list above. According to the RPFA (554/1995) section 154.1, an object acts as register unit. Therefore, not only real property units but also common areas or areas surrounding a road governed by the right of way (see section 4.1.2 “Rights of way”) may be the objects for an easement.

As a rule, the legal basis for easement is a contract between parties. There is, however, a prerequisite that the easement to be established is necessary for the purpose of use of the dominant real property, and that the establishment or use of the easement does not cause significant harm to the owner of the servant real property or owner of a possible previous easement. The legal basis may also be the authority’s order in a case where establishing an easement is necessary to implement legal cadastral surveys such as partition, division of joint property unit, obligatory land exchange, transfer of an area of real property unit to another, land consolidation or urban land readjustment. In these cases it is possible to establish easement numbers 1-8 and 11 from the list above without the approval of parties. Also, if the easement is to be established in an area with a detailed plan, easement numbers 1-4 and 11 and number 6 for keeping private cars without the approval of the owner of the servant real property may be established, if it is important for the subject.

Despite the fact that the RPFA 554/1995 classifies the easements into eleven different categories, there are more types of easement in the cadastre. These easements were established before 1998, when the JAKO system was first introduced in the NLS. As the JAKO system was put into operation, the established easements have been entered into the cadastre as use right units. (Halme et al. 2006, p. 99) The old types of easements are listed in a detailed manner in Appendix 2. All the different types of use right units (according to RPFA 554/1995 sections 154 and 154a) and their numbers are listed in Table 5.2. In the first column the easements are classified according to the classification given in the RPFA (554/1995) section 154 and 154a. The next column presents the code the use right unit is registered under in the cadastre. The third column presents the type of the use right unit and fourth column the number of those types of use right units registered in the cadastre. The last column presents the total number of registered use right units classified according to the RPFA (554/1995).

**Table 5.2** Easements (registered as use right units) according to the Real Property Formation Act (554/1995) and their numbers (JAKO 2012).

| Type according to RPFA section 154 | Code in cadastre | Type in cadastre | Number | TOTAL |
|---|---|---|---|---|
| 1) to take household water | 101 | Taking household water | 25 040 | 25 040 |
| 2) to conduct household water or to place and use the equipment and structures connected to it | 102 | Conducting household water | 14 777 | 20 097 |
| | 103 | Water pipe | 5 320 | |
| 3) to conduct water for the drainage of the land | 104 | Conducting water for drainage | 1 321 | 2 110 |
| | 130 | Conducting rain water | 789 | |
| 4) to place and use the equipment and structures connected with sewerage handling | 105 | Sewerage pipe | 5 548 | 5 548 |
| 5) to place and use the equipment and structures connected with telephone, electricity, gas, heating and other such cables and wiring | 106 | Telephone line | 822 | 7 936 |
| | 107 | Wire (electricity) | 2 059 | |
| | 108 | Gas pipe | 65 | |
| | 109 | Heat pipe | 786 | |
| | 110 | Pipe | 4 204 | |
| 6) to use an area necessary for keeping private cars or as a boat harbour, pier, swimming place, timber storage bay, loading area, and in an area with detailed plan, a common yard area | 111 | Keeping cars | 2 897 | 30 744 |
| | 112 | Boat harbour | 22 237 | |
| | 113 | Boat harbour and keeping cars | 1 389 | |
| | 114 | Pier | 1 342 | |
| | 115 | Swimming place | 340 | |
| | 116 | Timber storage bay | 831 | |
| | 117 | Loading place | 1 652 | |
| | 129 | Keeping cars, boat harbour and pier | 56 | |

| | | | | |
|---|---|---|---|---|
| 7) to use an area necessary for fishing | 118 | Area necessary for fishing | 217 | 217 |
| 8) to quarry rock, gravel, sand, clay, turf, or other equivalent soil | 119 | Extracting rock | 9 | 1 056 |
| | 120 | Extracting gravel | 703 | |
| | 121 | Extracting sand | 243 | |
| | 122 | Extracting clay | 26 | |
| | 123 | Extracting peat | 15 | |
| | 124 | Extracting soil | 60 | |
| 9) to establish and use structures necessary for civil defence | 125 | Organising an emergency shelter | 107 | 107 |
| 10) to establish and use a common heating plant or a waste collection site for the real property | 126 | Common heating plant for real properties | 67 | 1 016 |
| | 127 | Waste management premises | 949 | |
| 11) to create an area necessary for access purposes in an area covered by a detailed plan | 128 | Access area in an area of a detailed plan | 7 493 | 7 493 |
| Joint use area (section 154a) | 246 | Joint use area | 81 | 81 |
| TOTAL | | | | 101 445 |

The total number of registered easements (as use right units) is a little over 100 000. All of these easements are established according to the RPFA (554/1995) and belong to some of the eleven types of easements listed in RPFA (554/1995) Section 154 or joint use area (154a). Although the RPFA (554/1995) has listed the eleven different types, within one type there might be several subtypes of easements.

The most common type of easement in the cadastre is an easement for using an area necessary for keeping private cars or as a boat harbour, pier, swimming place, timber storage bay, loading area, and in an area with a detailed plan, a common yard area (total 30 744). When examining a single type of easement, the most common type of easement is for taking household water (25 040). Another significant type is out easement for conducting household water (14 777). (JAKO 2012)

*Easements according to the Land Use and Building Act (132/1999)*

According to sections 158 and 159 of the LUBA (132/1999), it is possible to establish a building easement. It means an easement which gives a permanent right to use a building or structure or take some other corresponding action in the area of another real property. There are two possible legal bases for establishing a building easement: either it is based on an agreement between parties, or it is required in a detailed plan. The legal provisions concerning building easements can be found in sections 158 and 159 of the LUBA (132/1999) and in section 80 of the Land Use and Building Decree (LUBD 895/1999). The municipal building supervision authority is responsible for the establishment, changes and removal of building easements and they are registered in the cadastre.

A comprehensive list of building easements is included in section 80 of the LUBD (895/1999). There are eight types of building easements and they may all be established as permanent or fixed-term easements. The types of building easements are (Table 5.3):

1) Foundation easement. The dominant real property has the right to use the foundations or a retaining wall to lay the foundations of a building or a retaining wall on the servant real property and to extend the foundations of a building or a retaining wall to the area of the servant property.
2) Structural easement. The dominant real property has the right to use a wall or structure of a building to brace an intermediate floor or some other structure or for some other corresponding structure in the area of a servant real property, and to build buildings on the property boundary border so that the buildings have a shared wall.
3) Equipment easement. The dominant real property has the right to place conduits and equipment related to them in abuilding on the servant real property and to use the necessary places.
4) Usage easement. The dominant real property has the right to use an access way, bomb shelter or parking place in a building on servant real property.
5) Maintenance easement. The dominant real property has the right to use heating plants or heat transfer equipment, facilities for waste management or other equipment and spaces for urban services.
6) Joint easement. The dominant real property has the right to use premises intended for joint use or other facilities which serve as residential, work or property management and spaces reserved for such purposes located in a building on a servant real property.
7) Wall easement. The dominant real property has the right to make a door or other opening in a wall on the boundary of a servant property or to neglect to build a fire wall.

8) Tolerance easement. The dominant real property has the right to extend the roof or part of the external wall containing additional insulation so that it overhangs the servant real property or to construct the roof in a manner that the water drains onto and is conducted via the servant property.

**Table 5.3** Easements according to the Land Use and Building Act (132/1999) and their numbers in the cadastre (JAKO 2012).

| Code | Type | Number |
|---|---|---|
| 216 | Foundation easement | 116 |
| 218 | Structural easement | 86 |
| 220 | Equipment easement | 18 |
| 222 | Usage easement | 127 |
| 224 | Maintenance easement | 28 |
| 226 | Joint easement | 16 |
| 228 | Wall easement | 54 |
| 230 | Tolerance easement | 113 |
| 244 | Joint arrangements between properties | 30 |
| TOTAL | | 558 |

The number of easements established according to the LUBA (132/1999) is noticeably smaller than the number of easements established according to the RPFA (554/1995). In total there are 558 easements established according to the LUBA (132/1999) of which the major types are easements for usage, foundation and tolerance. (JAKO 2012)

*Fishing right as easement*

Karvinen (2008, p. 2-4) classifies the fishing easements according to their establishment. The easement may have been established through official actions or based on contracts or person-to-property rights. A fishing right as an easement has been possible to establish through official actions based on the Act on Claiming Fishing Crofts (16/1924) or the SA (604/1951) sections 37 and 194. Fishing easements may have been established based on the SA (604/1951) from the time of entry into force of the Act until 1975 when section 37 was repealed. Before or after the SA (604/1951) there has been no legislation which would allow the establishment of fishing rights as easements through official actions. Although according to the legislation the establishment of this kind of easement was possible, Honkanen (1985, p. 107) notes that no fishing easements have been established.

Fishing rights based on a contract do not exist in legislation as a concept. However, according to Karvinen (2008, p. 3) the legal praxis recognises the practice of use right concerning real property owned by an other person, based

on a contract between parties. Prerequisite for contract based use right is that its primary goal is to benefit and serve the dominant real property, not to satisfy personal needs. An example of this kind of case might be a right to take gravel from another real property to maintain a road that is located in the area of the dominant real property. It is noticeable that a fishing right based on a contract shall not be seen as an easement (Wirilander 1979, p. 759).

In many cases fishing seems to be a person-to-property right. Karvinen (2008, p. 3) refers to decision 1941-I-11 of the Supreme Court which states that fishing for household use or leisure activity is not such a need for the real property that an easement based on contract would be possible to establish. When a right for fishing in a certain area is transferred to household, leisure or sport, the right is for personal needs. The characteristics for person-to-property right is that it is person-bound, and not connected with the ownership right of a real property. It is a special right mentioned in section 1.1., chapter 14 of the LC (550/1995), and it is not transferrable and expires upon the death of the person.

The theory of fishing rights being closer to person-to-property rights as easements is supported by the fact that after taking the JAKO system into use, not a single fishing right has been established as use right unit. Some 1 249 easements for fishing established prior to 1998 can be found in the cadastre (see Appendix 2).

### 5.1.2 Rights of way

The roads in Finland may be governed either by public or private means. The entire road network is about 454 000 km, of which around 350 000 km are private roads (FTA 2014). The private roads are governed by property-to-property rights regulated by the Act on Private Roads (later APR 358/1962). Public roads (highways, etc.) are governed normally by ownership right, but also by rights of way given to the quarter responsible for road maintenance. Since both parties of these public road rights are not real properties, the public road rights are handled in section 5.3 “Person-to-property right”. This section focuses on private rights of way.

According to the APR (358/1962), a permanent right of way may be established for a real property if it promotes its appropriate use and it does not cause significant harm to any real property. The right of way consists of the right to build the way, the right to use the way and the right to take actions for maintaining the road. (Markkula 2005, p. 11)

According to the APR (358/1962), it is possible to establish a right to extract soil for maintaining the road and the right to transport this soil on another road or area belonging to someone else. It is also possible to establish a right to use an area for timber storage, as well as to use an area for parking spaces. If the road leads to a waterfront, it is also possible to establish a use right for a boat yard and a right to use land and water areas necessary for a pier. (APR 358/1962 sections 6-13) All the rights that are established according to the APR (358/1962) are permanent use rights (Table 5.4). The rights of way shall be established according to prerequisites mentioned in APR (358/1962) in legal ca-

dastral surveys, and an exception to this are areas outside street zones in areas with a detailed plan. Those rights of way are established according to the RPFA (554/1995) as easements. (NLS 2014a 1.14)

**Table 5.4** Rights according to the Act on Private Roads (358/1962) (JAKO 2012).

| Code | Type | Number |
|---|---|---|
| 301 | Right of way | 287 636 |
| 302 | Extracting soil for maintaining roads | 394 |
| 303 | Timber storage | 4 176 |
| 304 | Keeping cars | 1 911 |
| 305 | Boat harbour and pier | 307 |
| 306 | Keeping cars, boat harbour and pier | 222 |
| 307 | Boat harbour | 2 880 |
| 308 | Landing stage for boats | 99 |
| 309 | Boat harbour and keeping cars | 922 |
| 310 | Transferring soil for maintaining roads | 14 |
| TOTAL | | 298 561 |

There are just under 300 000 registered rights according to the Act on Private Roads (359/1962). One group of rights is clearly the major type: there are almost 290 000 rights of way in the cadastre. (JAKO 2012) There are rights whose type is the same as in Table 5.2 but they have different codes in the cadastre. The rights differ from each other so that those rights presented in Table 4.3 are established according to the APR (358/1962), whereas the rights presented in Table 4.1 are easements and are established according to RPFA (554/1995).

The Act on Private Roads (358/1962) came into force on 1 January 1963 and it allows several different rights of ways to be established in a private road survey. They are:

1) Basic right of way. The basic right may be established according to section 5 of the APR (358/1962) and it is established on an area of another real property. It is a permanent right.
2) Additional right of way. This additional right of way is based on sections 9 and 9a of the APR (358/1962). It is given to one or more real properties and the right concerns existing roads – in some cases it may also concern a public road.
3) Terminable right of way. The right of way may be established as terminable according to the APR (358/1962) section 9b. It is possible in cases when it is considered that establishing a right of way as

permanent is not appropriate due to expected changes in circumstances or some other reason.

4) Temporary terminable right of passage. The terminable right may be established as temporary according to the APR (358/1962) section 82. This right may be given to a person who has the right of possession to a certain real property but not the ownership right. The right may be given for a fixed time or the time the possession is valid for. Also this right may be given to a real property for the time a cadastral survey takes.
5) Limited right of way. The limited right of way is established based on section 11 of the APR (358/1962). Whenever a right of way is established, it should be considered whether it causes significant harm for the servient property. In a case where the basic right of way would cause significant harm, it is possible to establish a limited right of way. The limitation may consider the season or the types of transportation the road may be used for, or some other limited right.
6) Expired joint road. When the OjaL[26] (983/1976) came into force on 1 March 1977, homesteads joint roads expired and were attached to the surrounding real properties. At the same time those property units which had a share of a joint road and were using it for the same purpose were given an easement to the corresponding area for the corresponding purpose without any compensation.
7) Other rights of way. According to the APR (358/1962), there are other ways to receive a right of way than in a cadastral survey. If there was a municipal road or village road that had not been transformed into public road according to the Act on Public Roads (244/1954), the road became private. The right of these private ways was given to those property units that required the right.

### 5.1.3 Other property-to-property rights similar to easements

Finnish legislation has few acts that include regulations on different property-to-property rights, other than those mentioned in previous chapters. Regulations are included in the Water Act (587/2011) and the Fishing Act (FA 286/1982). There are several acts including regulations on use rights other than property-to-property rights, and they are presented in upcoming sections 5.5 and 5.6, "Person-to-property rights" and "Public regulations" below.

According to the WA (587/2011), the use right of water power belongs to the real property owner. The share of the water area may be transferred for a fixed period or permanently. The conveyance shall be written and made according to the LC (540/1995). The transferred right of water power may be entered into the land register according to chapter 14 of the LC (540/1995). It is still worth not-

[26] Act on Expiration of Common Roads, Main Ditches, and Similar Areas, as Common Areas (OjaL 983/1976)

ing that from the land management point of view the transferred right of water power is still part of the original real property. There are 860 registered use rights established according to the WA (587/2011) in the cadastre (JAKO 2012).

There are several different kinds of fishing rights in Finland, some of which are property-to-property rights and some person-to-property rights. Mättö (2009, p. 38) classifies Finnish fishing rights into three categories: general fishing rights, fishing rights based on the ownership of the water area, and other fishing rights. Karvinen (2008, p. 1-4) takes more of a land management perspective in his classification where he groups the fishing rights into three different categories: rights based on the ownership of real property, rights belonging to a real property as special interest (see section 4.1.4) and fishing as easement (see section 4.1.1). In this research, Karvinen's classification (2008, p. 1-4) is used.

We can say as a principal rule that a fishing right belongs to the real property owner, in other words to the owner of the water area. The FA (286/1982) regulates that the right for fishing and its disposal belongs to the owner of real property if the right has not been transferred to another or unless the FA (286/1982) regulates otherwise. (Mättö 2009, p. 38)

In a private water area that is located in the sea in the outer archipelago or next to open sea, a resident of a municipality may use fishing nets to catch certain kinds of fish. If the area is located inside a village's boundaries, residents of the village[27] may use fishing hooks in this area. Every resident of the village has the right to fish for household use or leisure activity in a water area located inside the village boundaries, and the owner of the water area will define the area for these kinds of activities. (Mättö 2009, p. 44)

In the northern municipalities of Enontekiö, Inari and Utsjoki, the majority of water areas came under the ownership of the state during the determination of water boundaries. This means that the fishing right in these areas belongs to the state, excluding fishing rights that are defined as special interests. The state's fishing rights play a rsignificant role for local residents. This is why the fishing rights of locals are guaranteed bysection 12 of the FA (286/1982). (Mättö 2009, p. 43; Vitikainen & Heikkilä 1994, p. 5)

> *The private fishing grounds of the State shall remain in the possession of the State in areas where they have traditionally been and still are under State administration. Further provisions on their use as well as on the use of fishing rights belonging to the State and on fishing in waters owned by the State are given by Decree, in which case the interests of professional fishermen and local residents should be given priority. Permanent residents of the municipalities of Enontekiö, Inari and Utsjoki who are engaged in professional fishing, domestic fishing*

[27] In this context, the village is defined according to the water rights system. According to section 2.7 of the RPFA (554/1995), this kind of village refers to an inhabited village before Basic Land Consolidation, an equivalent group of houses, a lone-standing house, a granted parcel of land established before BLC, excess land separated for the state in BLC, a new house established on excess land after BLC, state forest land excluded from BLC and any other equivalent water area ownership unit considered original whose ownership has not been divided.

*or indigenous occupations, are, however, entitled to a free licence for fishing in State-owned waters in the municipalities concerned. However, the provisions of section 8(1) also apply to State-owned waters.*
(FA 286/1982, section 12)

### 5.1.4 Special interests

The concept of "special interest" is not defined in the actual Finnish real property formation legislation. However, the real property legislation renewal committee report says that special interest is based on previous distribution legislation and is given to real property. It is a right to use an area of another real property unit or area of common land or water area for some specific economic purpose. The special interest can be the right to rapids, the right to fishing or the right to quarry, for example. Special interest can be private or jointly owned, depending on, whether it belongs to only one real property or jointly to many real property units. Although new special interests can no longer be established, the old ones are still valid. (CR 1990:22, p. 136-137)

When studying the concept of special interest we should keep in mind their nature as property rights. So the important issue is that they are secured, not the legislation that was in effect at the time the special interest was originally established or formed for a real property. (GP 22/1989, p. 1; Hyvönen 1996, p. 757)

Section 2 of the Act on Common Areas (ACA 758/1989) defines jointly owned special interests as follows: "A jointly owned special interest is a right of rapids, fishing or other such use of land or water area that is located in an area of another property unit. The previously mentioned use right whose object is a jointly owned area but is not based on owning the share of the joint property unit is also seen as a special interest." The special interest in the ACA (758/1989) and the RPFA (554/1995) are the same. (GP 22/1989, p. 4)

Over time, special interest as a concept and its content have been left open when compared it with easements and other types of real property dimensions. Hyvönen (2001, p. 485-486), however, draws attention to the fact that special interest has been handled separately from the amendment to distribution legislation in 1988 both from easement and private lands belonging to real property. (Hyvönen 2001, p.485-486)

Although the legislative materials of the RPFA (554/1995) state that special interest is formed by giving it to a real property based on the previous legislation, it is noteworthy that this is actually not a rule. Haulos (2008, p. 6) states that special interest is usually established based on use, adjudication or some other corresponding special reason and at the moment the special interest is established, it is already seen as a part of real property. Earlier, a right based on a contract or through coercive means may have been seen as part of a real property and further as special interest, although nowadays the similar kind of right would be considered a person-to-property right.

In the literature we find that special interests are often compared to easements. The comparison is partly reasonable: both easement and special interest gives their owner the right to restrict the use of another's property unit. But unlike easements, special interests are not ruled by the *numerus clausus* principle and they are more independent in their nature than easements. (Rummukainen 2010, p. 79) The charasteristics of a special interest is that it usually has 1) purpose of use; 2) location; and 3) extent (Rummukainen & Salila 2011, p. 35). It should be noted that a special interest for fishing does not include the right to exclude the owner of the area:

> *A private right for fishing mentioned in the Act on Boundaries in Water (31/1902) and in the Fishing Act (503/1951) does not equal the right to exclude the owner of the water area. The right is based on special reasons and is a special interest and does not prevent the owner of the water area from practising his normal right to fishing in his own area.*
> (SC 1981-II-128)

According to Hyvönen (2001, p. 485), the Finnish land distribution legislation has always had a negative and considerate attitude against establishing special interests according to distributive legislation. But we can note that the distributive legislation is not the only legislation that can be established according to special interests. Distributive legislation has not functioned, and is still not functioning, as the basis for establishing and registering special interests according to other legislation. Special interests may also have been established according to the former Water Act (WA 264/1961, repealed).

The new Water Act (WA 587/2011) came into force on 1 January 2012. According to it, the authorising body may give a use right to the applicant for the following reasons: the applicant has been granted a permit according to the WA (587/2011); the applicant has received the right of use for the area in some other way but has lost it due to some dispute or other reason; and the use right is considered to be necessary when the nature and significance of the project that the application is for is examined. (WA 587/2011 chapter 17 section 8)

*Classification of special interests*

According to prevailing practice, a special interest may be a right to extract rock from a quarry, a right to water power, or fishing in a certain place in an area owned by someone else. A query to find out the registered special interests was made in the NLS JAKO system in December 2010. The query was carried out by using the query functions in the JAKO system. Additional search parameters were property units, in whose area are located use right units with values:

3201 special interest for fishing
3202 special interest for water power
3203 special interest for quarrying
3204 special interest

These four classes are all the use right units concerning special interests in the JAKO system. Apparently the fourth class, "special interest", includes all the other possible types of special interests that might occur.

Rummukainen and Salila (2011, p. 35) also classify the special interests into four categories according to their purpose of use. The groups are the right to water power, the right to fishing, the right for hunting and the right to extract soil and other natural products.

There can also be other kinds of approaches to different types of special interests than the commonly used approach to the purpose of use. One possible way to classify the types of special interests is to ruminate on the origin of the interest and its establishment and also to examine whether the method of establishment has had an effect on the handling and content of the special interest. In years gone by, a special interest may have originated from immemorial possession, charter of a homestead or other adjudication.

Immemorial possession has often been used as support for a special interest. Chapter 15 of the Land Code (LC 1/1734) includes sections on immemorial possession. According to it, by immemorial possession we mean a situation where someone has enjoyed real property or some right unmolested and unchallenged for so long that no one can remember how his ancestors or the previous owner had first gained it. The new Land Code (LC 540/1995) came into force on 1 January 1997 and repealed the previous LC (1/1734). The Act on Promulgation of the Land Code (541/1995) states that a previously gained right to appeal to immemorial possession is also valid after the promulgation of the LC (540/1995 section 18).

In this research, by special interest I mean an old right belonging to the concept of real property that has a certain economic significance; that can be private or jointly owned; that has a certain purpose of use; and that does not exclude the owner of the area. It should be noted that the special interest in this research is only a property-related right, even though in the Finnish legislation the term "special interest" has sometimes been used to describe a personal interest as well (see e.g. the Act on Structural Subsides for Reindeer Farming and Natural Source of Livelihood 986/2011 chapter 20).

Special interests have only been registered in the cadastre in Northern Finland, in the municipalities of Inari, Enontekiö, Muonio and Kittilä and two in Northern Ostrobothnia, in the municipality of Siikalatva (JAKO 2010). This was revealed in a query made in the JAKO system in December 2010. The search results from the JAKO system show that the cadastre includes only two types of registered special interests: fishing and water power. There are 880 registered special interests for fishing and two for water power (JAKO 2010). All the registered special interests for fishing are located in Northern Finland. The two other types of special interest are for water power and are located in the municipality of Siikajoki. When comparing the number of registered special interests for fishing in Utsjoki (171) with the special interests listed in Vitikainen and Heikkilä (1994) (334), it is obvious that the register seems to be missing a significant part of all the interests. In the next paragraphs the two types of special interests are studied more closely.

*Special interests for fishing*

A fishing place is considered to be a specific object when it comes to special interest for fishing. A fishing area is considered to be a certain waterway or a part of it that is specified by officials or the court. (Joona 2011, p. 97) A special interest for fishing may be related to either a fishing place or fishing. If the right concerns a fishing place, the right holder has the right to fish in a water area owned by someone else. When this kind of right is based on immemorial possession, it must be possible to indicate its boundaries. If the right concerns fishing without a specified area, it gives its holder the right to fish certain type of fish in a water area owned by someone else. In practice the special interest for fishing also concerns a specific place. The permitted traps and time for fishing are also often defined. (Honkanen 1985, p. 95)

Although fishing rights overall are mostly considered to be person-to-property rights (see Karvinen 2008, p. 2-4), special interest for fishing is a property-to-property right. The reasoning for this is based on the fact that regulations concerning special interest for fishing are defined in the same context as ownership of land and water. (Honkanen 1985, p. 97)

> *"(1) Usufruct exercised since time immemorial, or a right legally gained on another basis to a fishing place or to fishing within the boundaries of a village or outside the boundaries of a village will continue to apply as such. However, usufruct exercised since time immemorial regarding a fishing place is valid only if the boundaries of the place can be reliably proven.*
> *(2) If the right to a fishing place or to fishing in the waters of another village has not been approved when the demarcation of the district boundary is carried out, any action concerning the matter shall be brought in the general court of first instance within three years of the demarcation gaining legal force.*
> *(3) Where fishing rights have been provided by a court decision or in some other legal manner otherwise than stipulated above in this Act, such a stipulation shall continue to be observed."*
> (FA 286/1982, section 12)

Special interests for fishing have particularly significant status in the municipalities of Inari, Utsjoki and Enontekiö in northern Finland (see Figure 5.1). When the determination of district water boundaries in other parts of Finland began, the northern municipalities were excluded because the Basic Land Consolidation had still not been completed in those areas. In the areas of these municipalities the cadastral surveys for water boundary determinations were initiated as soon as the BLCs became legal. During the Basic Land Consolidations, when determining the water boundaries, the retaining of existing fishing rights should be carefully examined. According to the Act on Basic Land Consolidations in Inari, Utsjoki and Enontekiö (157/1925), during the determination of water

boundaries, the question of which homestead belongs to which village was also to be determined. This is why the implementing of determination of district water boundaries was left until after the Basic Land Consolidations. The villages owned only a small part of the water areas within their boundaries. This caused problems when trying to secure fishing for local people. (Pohjola 1983, p. 181-182)

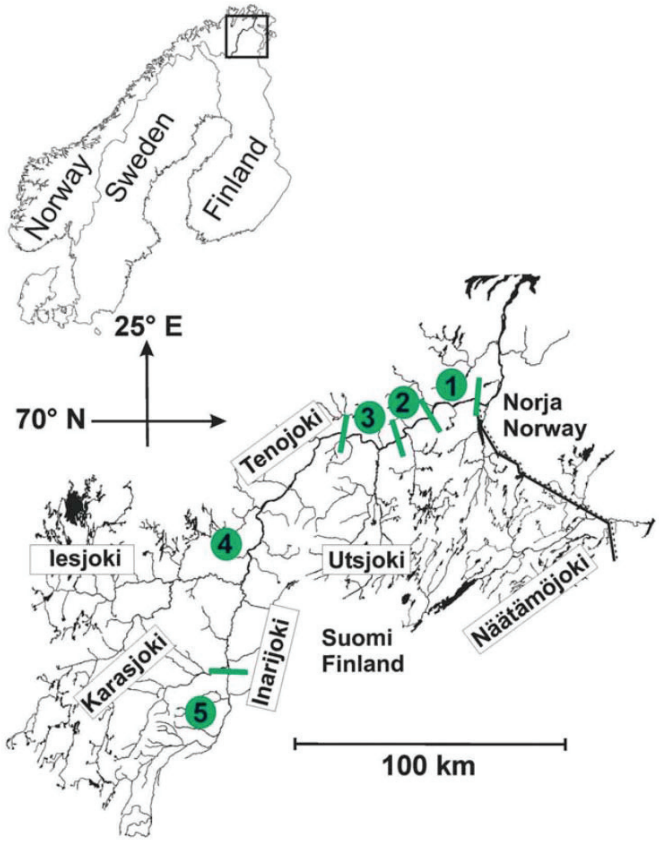


**Figure 5.1** The water area of the Tenojoki in the Northern Finland by participating property units creating a community of shareholders: Nuorgam (1), Vetsikko (2), Utsjoki village centre (3), Outakoski (4) the Inarijoki and the Kietsimäjoki (5) (Länsman et al. 2008, p. 9; Kulkki & Vitikainen 2009, p. 6)

According to their charters of foundation, the settlement homesteads were established between 1838 and 1902 in Utsjoki, from which 62 homesteads still existed when the Basic Land Consolidation began. Almost every homestead was given certain places or areas both in the Tenojoki area and the fell water areas for fishing. From these settlement homesteads, 96 homesteads were formed in the Basic Land Consolidation. In addition to fishing areas given to homesteads in the charters of foundation, more were given by decisions of rural police chiefs and different courts. (Vitikainen & Heikkilä 1994, p. 7)

Vitikainen and Heikkilä (1994) have clarified the number and type of these special interests for fishing in the Tenojoki and its nearby waterways. As a basis for that study, a clarification of Tenojoki fishing rights was used and a listing of its places for dams made for the Tenojoki Fishing Committee; listing of places for dams and a map made in the legal cadastral survey for the determination of district water boundaries, and studies made by the Finnish Game and Fisheries Research Institute at the Tenojoki research station. Based on these information sources we can present Table 5.5 which lists the different types of special interests for fishing.

**Table 5.5** Special interests for fishing rights in Utsjoki by fishing method and origin. (CR 1985:9; Vitikainen&Heikkilä 1994 p. 9-10; for more fishing rights, see e.g. Kulkki & Vitikainen 2009, p. 12)

| Fishing method | Given in charters of foundation | Based on immemorial possession | TOTAL |
|---|---|---|---|
| Dam | 105 | 52 | 157 |
| Fishing net | 8 | 72 | 80 |
| Dam+fishing net | 0 | 2 | 2 |
| Kulkutus[28] | 11 | 13 | 24 |
| Dam+kulkutus | 2 | 0 | 2 |
| Seine net | 3 | 20 | 23 |
| Seine net+fishing net | 0 | 5 | 5 |
| Fishing overall | 31 | 10 | 41 |
| TOTAL | 160 | 174 | 334 |

Kulkki and Vitikainen (2009) classify the special interests for fishing on the Tenojoki into four different categories by their method: right to keep a dam in a certain place (Figure 5.2); special interest for fishing net; seine net or right to kulkutus; fishing rights without a defined method. The same classification is used in Table 5.5. When classifying special interests for fishing rights by their fishing method we can also identify different combinations of the methods, as presented in Table 5.5. By looking at the table we can also note that there is a total of 160 special interests for fishing given to homesteads in their charters of foundation and 174 based on immemorial possession. The total number of special interests for fishing in Utsjoki according to the study is 334. (Kulkki & Vitikainen 2009, p. 12)

[28] Kulkutus is a particular method of fishing used in Northern Finland. It is a kind of net fishing method where the net is thrown across the river. During the floods in spring it is almost the only possible method of fishing in Tenojoki. (Helander 1985, p. 9)

**Figure 5.2** A special interest belonging to several real properties: a fishing dam on the Tenojoki. (Kulkki & Vitikainen 2009, p. 9)

*Crown fishing rights*

The Crown fishing rights create their own group within the fishing rights. Rummukainen and Salila (2011, p. 42) state that on many parts the Crown fishing rights refer to special interests for fishing and for that reason they are handled in this chapter. They are the state's private fishing rights that are based on royal fishing prerogative[29] . In Finland the royal fishing prerogative concerns the right to fish certain fishes. Nowadays the regulations of Crown fishing rights can be found in section 12 of the FA (286/1982) (see above) and new Crown fishing rights based on the royal fishing prerogative can no longer be established. (Hyvönen 2001, p. 680-681; Mättö 2009, p. 45)

The similarities between Crown fishing rights and special interests may be detected when the right concerns certain types of fish or similar areas, in which case the Crown fishing right and special interest for fishing are exclusionary. There is, however, a fundamental difference between these two types of rights. As a special interest is a part of real property according to legislation, a Crown fishing right is an independent register unit. (Rummukainen&Salila 2011, p. 42) However, in literature the Crown fishing right has sometimes been seen as a firm right of possession belonging to real properties and as such shall be registered in the land register (Hyvönen 2001, p. 684-686).

[29] The theory of royal prerogatives has its roots in Roman-German legal traditions and originally the prerogatives were seen as objects and rights belonging to the King. Prerogatives were divided into minor and major. Major prerogatives were the power to make judgment, legislation and its enforcement. Minor prerogatives were the rights to mines, routes, water power, uninhabited wilderness and certain fees. (Hyvönen 2001, p. 677-678) According to this, the fishing right is a minor prerogative.

*Special interest for water power and mill*

The right of water power normally belongs to the real property or other register unit, in whose (water) area rapids are located. This means that the right to use the water power belongs to the owner of the real property or if the area is jointly owned, to the joint property management association. The right of water power is transferable to another person and he/she will be the possessor of the right. If the transfer of the right of the rapids is based on a contract or coercive measure, it will be seen as a special right that is regulated according to section 1 chapter 14 of the Land Code (LC 540/1995). However, if the right of rapids belongs to another real property than the one that includes the rapids, it is then a special interest. (Haulos 2008, p. 2)

The previous legislation did not recognise the concept of "right of rapids", but the RS 1848 section 46.8, for example, states that the special interest may be a mill. The historical concept of a mill is comparable with the today's concept of right of rapids. Waterworks used to be divided into two main groups: those works that were liable to taxation and those works that were used for household purposes. The ones for household purposes were taken into account in the land tax. The separately taxed works were sawmills and windmills, for example, in which the customers paid for their grinding and sawing. The use of sawmills and mills for household purposes was only reserved for the register unit to which the work legally belonged. If the mill was jointly owned by several register units, its use was reserved for those register units. (Haulos 2008, p. 3)

An independent mill liable for taxation was a mill property unit that was taxed as a special property unit. The special tax for mills was cancelled in 1882 and after that the category of independent mills also included all the other mills that did not belong to any other property unit. The only mills that were exempt from tax were mills belonging to those homesteads that were exempt from land tax (rälssitila). However, the exceptions became more common as time went on. (Haataja 1932, p, 114)

If a land owner had received a mill based on prescription and the mill was located in the area of another village and the land of the owner was not a participating property unit of the village, the mill was taxed as an independent property unit. If the mill was located in the same village in which the land of the owner was a participating property unit, it was seen as part of the homestead. (Haataja 1932, p. 114)

The separately taxed mills were registered as special register units in the land book. These mills had the legal status of a homestead and had to be separated from those that were not independent but taxed as part of another register unit. In practice, the only difference between these two kinds of mills was the fact that the independent mills were once given their own identity number in the land book. Although these mills were seen as independent special real properties, they were recorded in the end of land book in a separate list of mills. (Haataja 1949, p. 781-782)

After the mill tax was abolished, it was decided to leave the separate lists of mills out of the land book. There was no change in this procedure although a law on land book introduced in 1897 stated that in addition to independent

mills, all the other mills that did not belong to any other land book register unit in the land book shall also be recorded in the land book. When these mills were missing from the land book, they were also left out of the land register when it was compiled for the first time. (Haataja 1949, p. 782)

Both the mills for household use and the independent mills were listed in the land book compiled in 1875 as a separate list. This list includes all the mills categorised by counties and municipalities and their names, location, tax and participating property units, if there were more than one. The independent mills ("fullmjölqvarnar") and mills for household purposes belonging to a certain homestead ("husbehofsqvarnar") are separated in this list. By collecting the information from the land book it was possible to create an understanding of how many mills there were in Finland (Table 5.6). (LB 1875)

**Table 5.6** The numbers of independent mills and mills for household use categorised by counties in Finland according to land book from 1875. (LB 1875)

| County | Independent mill | Mill for household use | Total |
|---|---|---|---|
| Häme | 97 | 343 | 440 |
| Kuopio | 116 | 414 | 530 |
| Mikkeli | 202 | 170 | 372 |
| Oulu | 21 | 869 | 890 |
| Turku and Pori | 72 | 1173 | 1245 |
| Uusimaa | 67 | 124 | 191 |
| Vaasa | 46 | 1122 | 1168 |
| Viipuri | 100 | 147 | 247 |
| Total | 721 | 4 362 | 5 |

Table 5.6 presents the numbers of independent mills and mills for household use categorised by counties. The data is collected in the land book from 1875 in the National Archive Service of Finland. However, it should be noted that the numbers in the Table 5.6 may not be realistic for all parts, since the digitised land books' lists are incomplete in parts. It seems that the lists are only comprehensive when it comes to the counties of Häme, Turku and Pori, and Uusimaa. There are deficiencies in the lists in other counties' jurisdictional districts. A more detailed summary of the mills is presented in Appendix 3. (LB 1875)

There are just a little over 5 000 mills listed in the land book from 1875 in Finland. Most of these (86%) were for household purposes. Most of the mills were located in the counties of Turku and Pori, and Vaasa. The county of Oulu also had numerous mills. The fewest mills according to the land book were in the counties of Uusimaa and Viipuri, but it should be noted that Table 5.6 only includes those municipalities that are located inside the present Finnish border. It also seems that the county of Mikkeli had fewer mills than elsewhere, but the land book is lacking lists from the area of this county. (LB 1875) An example of an old place for a mill which is still in use (but the constructions are newer) can be seen in figures 5.3 and 5.4.

**Figure 5.3**. A mill in Hirvikoski village, Loimaa.

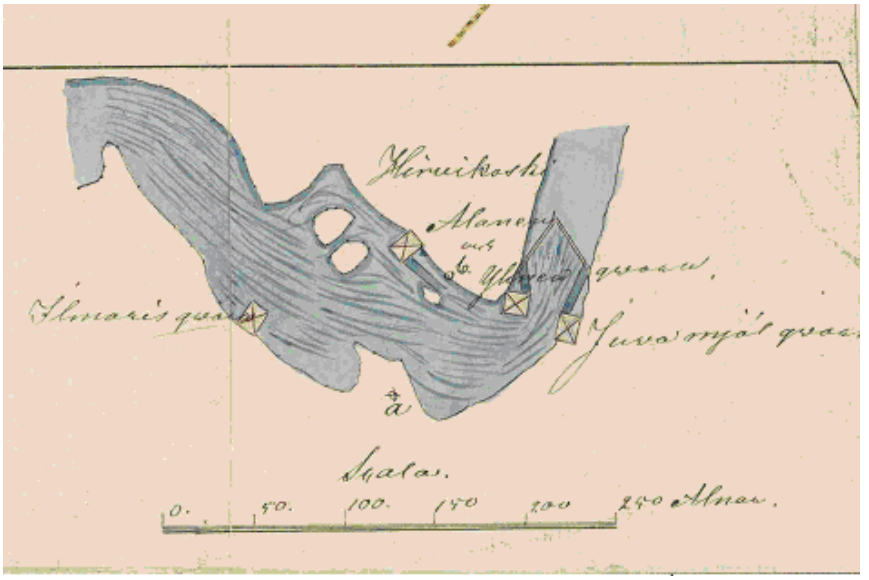


**Figure 5.4** The mills in Hirvikoski were clarified during a taxation procedure in 1850 (central archives of the National Land Survey of Finland, code Loimaa 9:9).

There are no registered mills in the Finnish cadastre nowadays, because the cadastre is based on the previous land register. The land book previous to the land register included the mills liable to taxation, but they were left out of the land register. More about the history of the Finnish cadastre and the data

recorded in it in different time periods is written in chapter 4 “From land book to cadastral information system”.

## 5.2 Commons

Common in LCDM is close to ownership right, but it is executed by another real property, not a person. As ownership creates the basic connection between man and land, common creates a connection between several real properties. When a real property is transferred to another owner, common follows along with the property. Common is recognised in different parts of the world in slightly different ways. Paasch (2008, p. 124) emphasises that in this context common is a right, not a form of ownership (for example two people owning a real property together or by shares).

In Finland, commons also form a significant group of registered units in the cadastre. However, a common is registered in the cadastre as an independent register unit, not as a right. In Finland this right is called a “share of jointly owned area”. Table 5.7 shows the object, characteristics and definition of Common.

**Table 5.7** The object, characteristics and definition of Common based on Paasch (2008, p. 124) and in the Finnish context.

| **Class name** | **Object** | **Characteristics (international) (Paasch, 2008 p. 124)** | **Characteristics (Finland)** |
|---|---|---|---|
| Common | Connection between two or more real properties | • An executed right by two or more real properties on land owned by the properties<br>• The right is transferred together with a real property when the real property is sold or otherwise transferred<br>• The right is similar to ownership right, but executed by real properties, not persons<br>• The right can be beneficial or encumbering to ownership | • An executed right by two or more real properties in land owned by the properties<br>• The right may be transferred with a real property or transferred separately<br>• The right may form a whole real property *per se*<br>• The right is similar to ownership right, but executed by real properties, not persons<br>• The right can be beneficial or encumbering to ownership<br>• The content ofthe right depends on the object area |
| Definition: Common is a right executed by two or more real properties by certain shares in an area owned by the properties and that is registered in a cadastre as jointly owned area. | | | |

The legislation does not require that the common is used for its original purpose, if the shareholders decide otherwise. A common may, in theory, be beneficial or encumbering to ownership but in most cases is only beneficial. There might be some duties or obligations following the common (for example maintenance, some payments) and the common is even stated to be a "forced membership to a judicial use community" (Määttä 2002, p. 37). Hyvönen (2001, p. 461) reminds us that usually the destiny of a common in a cadastre, cadastral proceedings and transfer is the same as the real property's destiny.

The common is always a right which is executed by real properties by certain shares in an area which is owned by the properties and is registered in a cadastre as a common area. However, depending on the type and nature of the area, the content of the common varies. If the common is related to any other area than common forest, it is regulated by the Act on Common Areas (ACA 758/1989). If the common is related to common forest, the content of the common is regulated by the Act on Common Forests (ACF 109/2003). For this reason, it is justified to classify the commons in Finland in two categories; commons and common forests.

According to the definition in section 2.2 of the RPFA (554/1995), a common area is an area that belongs to two or more real property units by certain shares. According to section 2.1 of the ACA (758/1989), a common area is an area that belongs to two or more real properties jointly. These definitions are uniform. A common area is not an area that is owned by multiple persons. In addition to the ACA (758/1989), regulations concerning common areas may be found in the Water Act (587/2011), the Fishing Act (286/1982) and the Act on Expiration of Common Roads, Main Ditches, and Similar Areas, as Common Areas (OjaL 983/1976). The concept of "common" includes common water areas, common forests, common reliction areas and other common (land) areas (Majamaa & Markkula 2001, p. 239).

A common area is formed or left jointly owned in a cadastral survey and can refer to different kinds of land and water areas. These areas may be formed for certain purpose of use, for example a common area for the extraction of gravel or a common forest. A common area may also be created by other means and without a certain purpose of use. These kinds of common properties are for example expired main ditches and roads and reliction areas raised from common water areas. (Hollo 1995, p. 723)

Numerically the share of common property units compared to all register units is around two percent (Halme et al. 2006, p. 84) but their average size is rather small. As exception to this can be seen in water areas and reliction areas belonging jointly to a village: these areas may be quite large. The value of common property units measured in monetary terms varies. Small areas for extraction of gravel or clay have low monetary value, whereas a village's common water areas or common forests may have remarkable monetary value. (GP 22/1989, p. 1-2)

The ACA (758/1989) does not include a comprehensive listing of all the different purposes of use for common areas, so a common may be established for any kind of purpose of use. In addition, the previous legislation did not include this

kind of listing, but the lists have rather been considered as suggestive and leading. The purpose of use may also have been changed after the formation of a common area and it is possible to use the area for other purposes than the one decided in the cadastral survey. (Hyvönen 2001, p. 465)

The formation of a common area may be based on voluntary or obligatory means. The basis for voluntary formation is created by a contract between the interested parties, and the common area may be formed if it is necessary for the interested real properties. However, a common area cannot be established for a common forest, road, main ditch or other kind of water conduction. In an area with a detailed plan it is not possible to form a common area. In addition, if the need that common area was formed for would also be satisfied by establishing an easement,a common area may not be formed. (Hyvönen 2001, p. 472, 477; RPFA 554/1995 section 132)

A common area may be formed on an obligatory basis by the decision of cadastral officers. In this case the prerequisites are necessity, expediency, non-prejudice and consent of the holder of a mortgage deed or deliberation that the formation causes no prejudice for the holder of a mortgage deed. (Hyvönen 2001, p. 474) According to section 136.1 of the RPFA (554/1995), in land consolidation and land partition, when it is expedient for the end result and it causes no remarkable prejudice for shareholders, it is possible to parcel out without a contract between interested parties as a common area:

> 1) *an area necessary for private car storage or for a boat harbour or dock;*
> 2) *an area necessary for drawing water or for damming;*
> 3) *an area necessary for quarrying rock, gravel, sand, clay, turf, or other soil; and*
> 4) *a land area necessary for the use of a joint water area or fishing rights which constitute a joint special interest [benefit]."*
> (RPFA 554/1995 section 136.1)

It is also possible in partitioning to parcel out the water area of a real property for creating a joint water area, if no special reason for its division exists (RPFA 554/1995, section 135). In land consolidation a common property may also be formed for other purposes. In the division of a water area, a special fishing site may be formed into a joint property unit if it is necessary for the realisation of the division (RPFA 554/1995 section 140.2).

### 5.2.1 Governance of the commons

The first regulations on governing the commons in Finland were given in the 1940s when the Finnish government initiated for some regulation for commons (especially at that time commons of a village). This initially led to enacting a general Act on Common Areas and Interests (204/1940) which created the prerequisites for arranging the governance and use of commons. (Kotkasaari 2000, p. 141)

The governance and use of common areas, as well as the governance and use of joint special interests, is organised according to the ACA (758/1989) on a general level. An exception to this are common forests, whose establishment and governance are regulated by the Act on Common Forests (ACF 109/2003). The formation and division between the shareholders of common areas are regulated in chapter 13 of the RPFA (554/1995) and section 31 of the RPFD (1189/1996). The management association of common area consists of the owners of those properties that have a share of the common area. The management association's duties are to take care of the management of common area as well as other tasks concerning the area. In case the management association has made and approved a constitution concerning it, it is an organised management association. (Sections 3 and 4 of the ACA 758/1989)

The conditions of governing the commons have been clarified by Ostrom (1990, p. 90-120). The following statements (or design principles) can be said to influence a well-functioning governing of commons:

1) The area has clearly defined boundaries and the holders of the common are clearly specified.
2) The use and rules of the area meet the local conditions.
3) The holders of the common have the opportunity to be involved in the decision-making process.
4) There is effective monitoring of the use of the area.
5) A procedure and sanctions for misuse are determined by the association.
6) A procedure for disputes exists.
7) Associations are self-dependent and have the freedom to create their own rules.
8) If the common is large, there are sub-associations within the common.

(Ostrom 1990, p. 90-120; Vilska 2006, p. 58)

Since the ACA (758/1989) only regulates the association of a common at a general level, Statement 7 is fulfilled. The associations of commons may independently decide on their rules, sanctions and use of the area. As shown in section 4.5.1 "The fundamental improvement work of Finnish cadastre", the National Land Survey is still working on Statement 1. Among others, the fundamental improvement work is done for water law villages' registers of common holders to probate the register lists in cadastral surveys and also to clarify the boundaries. In addition, a fundamental improvement is made to create lists of holders of commons (for other areas than water law villages) and register them at least temporarily and to verify the lists in a cadastral survey or without it.

The official governance of commons is carried out by the NLS, which registers the commons and common areas to the cadastre. There are 17 possible codes in the cadastre for common areas, of which seven are reserved for repealed areas. (NLS 2014b, p. 85-86)

### 5.2.2 "Common" is an old concept

Hyvönen (2001, p. 464) states that common areas have existed for as long as we have had historical sources. They have been the object of legislators' interest in the early provincial administration acts and common laws. More precise statutes were included in the Building Code (BC) in 1734, chapter 11 of which concerns common grazing, chapter 12 letting pigs in common chestnut forests, chapter 16 the use of common forests, chapter 17 the use of common fishing waters, and chapter 20 the erecting of a mill on common rapids. (Hyvönen 2001, p. 464)

Water areas in particular were left as common areas and outside the cadastral survey during Basic Land Consolidations in the 18th and 19th centuries. Section 77 of a statute on land surveying introduced in 1783 stated that when dividing the village land the fisheries should remain common. The Decree on Basic Land Consolidation introduced in 1775 did not make a difference between public, common, private and special need. Section 5.2 of the said statute stated that the Basic Land Consolidation shall decide where the roads, main ditches and other necessary public places need to be staked out. At that time the essential question was the purpose of use of the area, but its type was under surveyors' consideration. (Hyvönen 2001, p. 465)

If the area was separated from the remaining area in the Basic Land Consolidation and was for public needs, it was possible to remain under state ownership. If the area was separated from land liable to taxation paid by the participating real properties, it was possible to separate the area before the land consolidation for common needs. Further, section 71 of a statute on surveying introduced in 1793 stated that areas for roads, main ditches and other public use from the area that was the object of the Basic Land Consolidation needed to be separated. Hyvönen (2001, p. 465 referring Gyldén) writes that "other public use" meant here boat harbours and loading areas, areas for soaking flax, areas for extracting sand, soil and clay and other similar areas that were not directly connected to agricultural use. Areas for public and common use were separated from each other in surveying legislation from 1848 (RS 1848).

Before conducting the Basic Land Consolidation or during the procedure the area to be rearranged was usually assessed for taxation, which confirmed the assessment units of land. These assessment units were also the basis of division as well as for determining the share of homestead of commons. This is how the shares (rights) of common waters, for example, were created, since water areas were left out of the Basic Land Consolidations. (Hollo 1995, p. 723)

### 5.2.3 Common forests

A common forest is an area belonging to two or more real properties and it is established to practise sustainable forestry to benefit its shareholders. Its use and management are regulated in the ACF (109/2003). In 2013 there were a total of 257 joint forests, the total area of which was 560 000 hectares (4.5 percent of the area of privately owned forests). (FFC 2014)

A common forest is formed in a cadastral survey for that specific purpose according to chapter 10 of the RPFA (554/1995). The shareholders should make an agreement regarding the establishment (according to section 5 of the ACF 109/2003), or the agreement can be done during the cadastral survey. The agreement should include a proposal for rules of procedure; names, addresses, places of residence and dates of birth of the founders; areas to be formed as common forest; the properties that have a share of interest of common forest and the owners of these properties, the agreed share of interest or the basis to determine it and compensation for forming the common forest when they are not left to be determined in the cadastral procedure. (ACF 109/2003, section 5)

### 5.2.4 Common water areas and common reliction areas

In Finland there slightly more than 20 000 joint water areas with a total area almost 4 million hectares. The number of individual common waters is rather large, partly because the area may be located in an area of several municipalities and therefore the same area is divided based on the municipality borders to separate areas and may have different identification numbers. (Vilska 2013, p. 40; Vilska 2006, p. 18-19) Almost half of the Finnish water areas are commons, the rest are either public or under private ownership (Vilska 2006, p. 12, 19).

A common reliction area is created due to land raising or lowering the water level. It is an area that used to be under water but has permanently become land area. An estimation on the number of common reliction areas is around 10 000 – 20 000. The RPFA (554/1995) does not make a difference between common reliction areas and other common areas. The previous legislation classified them as separate groups of common areas, as it did with common land and water areas. (Peltola & Hiironen 2007, p. 47; Karvinen 2006, p. 18-19)

### 5.2.5 Expired common roads and main ditches

In partitioning, it was previously possible to parcel out common roads and main ditches of homesteads. The year 1977 saw the introduction of the Act on Expiration of Common Roads, Main Ditches, and Similar Areas, as Common Areas (OjaL 983/1976). The goal of this Act to significantly limit the working hours and costs needed for the total renewal of a cadastre by reducing the number of register units. Immediately expired areas according to OjaL (983/1976) section 1 are:

1) Areaa that have been parcelled out for common needs, left out from partitioning or by some other means considered to be joint property for passage, transport or main ditch.
2) Municipal and village roads that have not been transformed into local roads according to the Act on Public Roads Act Coming Into Force (244/1954) so they neither belong to any homestead nor were not units of expropriation.

3) A loading place or other area serving the use of a road or main ditch located next to common road or main ditch, which in a cadastral survey is seen to belong to the same common area.

It should be noted that this Act did not refer to common boat harbours. (Hyvönen 2001, p. 481):

> *A question of whether an area parcelled out in a village's land consolidation for common area shall be seen as common area was mentioned in the OjaL (983/1976) and so expired after OjaL (983/1976) came into force. The real property units involved in land consolidation had applied for a cadastral survey to establish a private road. The cadastral officers stated that a common loading place, for which the private road was to be founded, had not expired as a common area. The owners of the real property that the private road was to be built for, appealed to the land court. As justification they stated that the common area had expired according to the OjaL (983/1976). The land court agreed with the appellants and revoked the cadastral survey. After this the real property units involved in land consolidation appealed to the Supreme Court (SC). The SC stated that the loading place shall not be considered as a common area mentioned in the OjaL (983/1976) because of its use. The SC revoked the decision of the land court.*
> (SC 73/1993)

Those real properties that had a share of common area and which, at the time when the Act came into force, used the common area in its original or comparable purpose of use, received an easement for the same area and the same purpose with no compensation according to section 4 of the OjaL (983/1976). The ownership right of the area was either transferred to an adjoining real property or in some planning-related cases to the municipality. (OjaL 983/1976 sections 1, 3 and 4; Hyvönen 2001, p. 481)

### 5.2.6 Expiration of commons

Hyvönen (2001, p. 480) lists common procedures that lead to the expiration of common property. Unlike special interest and easement, the expiration of joint area does not obey specific regulations of the RPFA (554/1995) but there are several different actions that may cause the expiration of joint property.

1) Dividing the common property in a cadastral procedure between the properties that have a share of common property. Nearly all the joint areas may be divided according to their conditions. The joint property is divided according to the shares that interested properties hold. Every interested property gets its own private area, the boundaries of which are determined by the common property. Normally the area is

attached to the receiving real property or for some particular reason formed as an independent real property. (Hyvönen 2001, p. 273)

2) Expropriation of joint property to attach it to real property during partition or separate cadastral survey. A shareholder may give up of the share and receive compensation for it if the appropriate result of partition requires it. (Hyvönen 2001, p. 273)
3) Conveyance of joint property and its parcelling out based on the conveyance as independent real property or attaching it to another real property. A joint property may be transferred as an unseparated parcel by following the regulations of conveyancing and titling. According to section 15 of the ACA (758/1989), the common property management association shall make the decision of transferring the joint property, a share of joint property or leasing it for a minimum of five years. (Hyvönen 2001, p. 469; ACA 758/1989 section 15.1)
4) Forming the common property as real property, the owners of which are the shareholders of common property.
5) Expropriating the joint property.
6) Conveyance of all the shares of joint property to one property and parcelling out the joint property to an independent real property or attaching it to another real property.
7) Amalgamation of the shareholder properties as one register unit and in pursuance of it attaching the joint property to the new real property.
8) Expiration of joint property *ipso jure* in some cases (OjaL 983/1976).

## 5.3 Person-to-property right

Person-to-property rights are rights executed by a person on a real property owned by someone else. These kinds of rights usually concern harvesting fruits, wood or some other material or they might be a right to lease or rent. (Paasch 2008, p. 125) The object, characteristics and definition of person-to-property right are presented in Table 5.8.

**Table 5.8** The object, characteristics and definition of person-to-property right based on Paasch (2008, p. 125) and in the Finnish context.

| Class name | Object | Characteristics (international) (Paasch, 2008 p. 125) | Characteristics (Finland) |
|---|---|---|---|
| Person-to-property right | A connection between a person (not owner) and a real property | • A right executed by a person other than the owner in a real property<br>• The right to use or harvest the fruits/material of a real property, rent or lease the real property in whole or in part<br>• The right follows the real property when the property is sold or otherwise transferred<br>• The right can be beneficial or encumbering to ownership | • A right executed by a person other than the owner in a real property<br>• The right to lease or other use right, traditional life annuity, forest harvesting, extracting soil or minerals or other similar right of severance to the whole real property or a part of it<br>• The right may be entered in the title and mortgage register only as non-permanent<br>• The right follows the real property when the property is sold or otherwise transferred if it is registered<br>• The right can be beneficial or encumbering to ownership |
| Definition: Person-to-property right is a right executed by a person other than the owner of real property and it might be a right to lease or use, traditional life annuity, forest harvesting, take soil or minerals or other similar right of severance. | | | |

Person-to-property rights are entered in the land register (in Finnish "lainhuuto- ja kiinnitysrekisteri", the title and mortgage register) or in the cadastre. They are regulated by numerous pieces of legislation, the major pieces of which are the Land Code (LC 540/1995) and the Highways Act (503/2005). The common denominator for all the person-to-property rights is that they are executed by a person, not by another real property.

### 5.3.1 Person-to-property rights according to the Land Code (540/1995)

Special rights are limited personal (person-to-land) use rights and all the rights that may be registered to a land register are listed in sections 1-5, chapter 14 in the LC (540/1995). The rights can be divided into three groups: those whose registration is obligatory, those whose registration is voluntary, and those which may not be registered (Figure 5.5). There are also rights that resemble special rights and that shall be registered according to section 5, chapter 12 of the LC (540/1995). The voluntary registration affords the right holder protection in transaction situations against a third party. (NLS 2014c) A right to be registered must be terminable; a permanent person-to-property right may not be registered. However, terminable does not mean that the right is registered some term; it may be also registered for until further notice. (Jokela et al. 2010, p. 344)

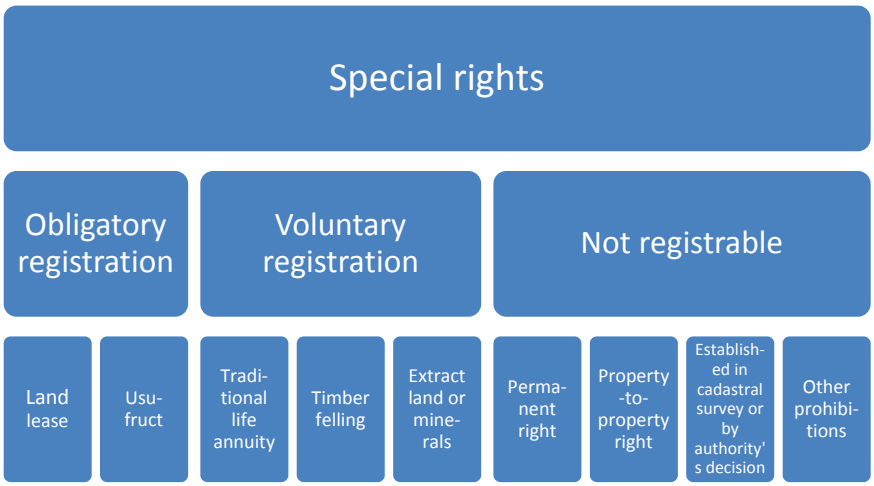


**Figure 5.5** Types of special rights.

There are some rights that may be entered in the register if wanted and some rights that shall be entered in the register *ipso jure*.

It should be noted that even if the special right concerns only a part of a real property, the registration will be made to concern the whole real property and the partial right will be explained in the register in "additional information". What is also notable is that a designated share of a real property may not be the object of a person-to-property right. (Jokela et al. 2010, p. 318; NLS 2014c, p. 220)

Obligatory registration concerns land lease and other usufruct when the usufruct is required to be transferred to a third party without asking the permission of the title holder. The obligatory registration concerns also usufruct in cases when there are buildings or other constructions in the area of usufruct that belong to the holder of usufruct. The holder of usufruct shall apply for registration when the right has been established or when the new holder of usufruct has received it by conveyance or other acquisition. (LC 550/1995 Section 14.2; NLS 2014c, p. 226)

Voluntary registration concerns other types of special rights, which are defined in section 14.1 of the LC (540/1995). These rights are right to traditional life annuity, right to take timber and right to extract land or minerals or other right comparable to this. Other types of rights similar to special rights also exist.

Whenever a special right is permanent, it cannot be entered into the land register. Also in a case when the right is not personal but connected with real property, it cannot be registered. If the right has been established in a cadastral survey or by the authority's decision, it cannot be registered in a land register. There are also exceptions to these regulations when other legislation requires registration into the land register, even though the overall prerequisites for registration do not exist. An example of this kind of situation is the permanent use right for water power, which according to old Water Act (WA 264/1961) was to be entered into the land register even though the right was permanent. (NLS 2014c, p. 212)

Some other rights that may not be registered also exist. One example of that kind of right is the negative use right, which means such a restriction that the owner of real property refrains from using his/her property in a certain manner (for example not to cut timber). The prohibition to mortgage the real property may not be registered, as well as prohibition to move a building away from the real property. (NLS 2014c, p. 212) This, however, does not mean that these kinds of rights or restrictions cannot exist. It only means that they cannot be registered but when stated in contract between parties, the rights are valid.

In practice, the most significant group of person-to-property rights is lease. The lease may be land lease or tenancy. Land lease is regulated by the Act on Land Lease (258/1966) and the object of it may be a land and/or water area and buildings which are owned by the owner of the land and located in the leased area. The lease types regulated by the Act on Land Lease (258/1966) are site leasehold, other residential ground lease, farm lease and agricultural lease, and other lease. (NLS 2014c, p. 225)

If the lease contract concerns mainly a building or a part of it, the regulating Act is no longer the Act on Land Lease but the Act on Tenancy (481/1995) or the Act on Business Tenancy (482/1995), depending on the purpose of use. The acts also apply in cases where the land under the leased buildings is included in the contract. This lease may be registered but it is not obligatory. (NLS 2014c, p. 226)

A land lease is created through a contract which gives a certain real property or an area to another person for some defined payment for a specified period or until further notice. If the contract does not include any payment, it is a question of usufruct. The usufruct is normal in cases where the contract parties are close relatives, for example. The contract is often named as a lease but is not regulated by the Act on Land Lease (258/1966) since there is no agreement on payment. Another type of personal use right is limited use right. The limited use right gives its holder the right to use a real property or a part of it for a certain kind of activity (e.g. hunting, regulated by the Hunting Act 615/1993, fishing, regulated by the Fishing Act 286/1982) but does not allow possession. (Jokela et al. 2010, p. 343-345; NLS 2014c, p. 226)

The traditional life annuity is very close to personal use right as nature, but may also include other obligations, for example the obligation to arrange regular dining. Traditional life annuity is usual in cases where a change of generation is made and a farm is sold to a younger generation. This right is normally created for the lifetime of the right holder and is not transferable. (Jokela et al. 2010, p. 345-346; NLS 2014c, p. 240)

Timber felling right gives its holder the right to cut certain types of timber in a certain area at a certain time. There are numerous agreements on timber felling rights but in practice they are not often registered, since the purpose of registration is to secure the right against a third party in transaction. The right holder is usually a forest company. If the agreement on timber felling right does not mention on the term of the agreement, it will be registered for three years. Otherwise the registration will be for the term determined in the agreement, yet not more than five years. (Jokela et al. 2010, p. 346-347; NLS 2014c, p. 240-241)

The right to extract land or minerals[30] may be registered according to agreement either for a specified term or until further notice. However, the maximum time for registration of this extract right is 50 years. (Jokela et al. 2010, p. 347; NLS 2014c, p. 241)

### 5.3.2 Person-to-property rights according to the Highways Act (HA 503/2005) and the Railways Act (110/2007)

The HA (503/2005) came into force at the beginning of 2006 and it superseded the previous Act on Public Roads (243/1954). According to the new Act, road areas are governed by ownership right, not the right of way, as was the case in the previous Act (Markkula 2005, p. 36). The Railways Act (110/2007) came into force at the beginning of 2008. Corresponding to the HA (503/2005), the railways are also governed by ownership right. However, if the road or railway is located in a tunnel, on a bridge, on a dam, on or underneath a deck, the governance is managed by a right of way or in case of railways, by use right, not ownership right. Also, if there is space for a building allocated under or over the road in legally effective plan, a right of way is established for the road keeper. Areas near a road or railway are also governed by a right of way or use right.

Sections 44 and 45 of the HA (503/2005), state that it is possible to establish a buffer zone and an area of sight distance, which are entered into the cadastre as units of use right. A buffer zone normally extends 20 metres from the middle of the road and it is prohibited to build within that area. The party responsible for maintaining the road has the right to remove vegetation if needed. The lateral clearance area may reach beyond the buffer zone in a case of two bigger roads or where a railway crosses a road. It is prohibited to build with a lateral clearance area and the party responsible for maintaining the road has the right to move vegetation or other nature obstacles. Other rights that may be established according to the HA (503/2005) are the accessory area of a highway and right of drainage ditch for the party responsible for maintaining the road (Table 5.9).

**Table 5.9**. Rights according to the Highways Act (503/2005) (JAKO 2012)

| Code | Type | Number |
|---|---|---|
| 2501 | Right of way according to the HA (503/2005) | 5 553 |
| 2502 | Buffer zone of highway | 8 622 |
| 2503 | Lateral clearance area of highway | 828 |
| 2504 | Accessory area of highway | 5 |
| 2505 | Right of drain ditch for quarter responsible of maintaining the road | 761 |
| TOTAL | | 15 769 |

[30] In this context, the "land or minerals" refer to those mentioned in section 1.1.of the Land Extraction Act (555/1981), or rock, gravel, clay, sand and mould and also other soil types as peat. (Jokela et al. 2010, p. 347)

In total there are over 15 000 rights established according to the HA (503/2005) registered in the cadastre. The largest group of rights is the buffer zone of a highway (8 622) and rights of way (5 553), which refer to tunnels, bridges etc. In 2011 there were no registered rights according to the Railways Act (110/2007). (JAKO 2012)

### 5.3.3 Person-to-property rights according to other legislation

The Water Act (WA 587/2011) regulates that the cadastre shall include the information concerning use rights established based on the WA 587/2011. There are 860 registered use rights in the cadastre (Table 5.10). The right to use water power must also be registered. There are two registered rights of water power in the cadastre which are person-to-property rights (JAKO 2012). It should be noted that these rights are not the same as the two registered property-to-property rights (see section 5.1.4.1 "Classification of special interests").

**Table 5.10** Person-to-property rights according to the WA (587/2011) (JAKO 2012).

| Code | Type | Number |
|---|---|---|
| 1407 | Use right according | 860 |
| 1403 | Right of water power | 2 |
| TOTAL | | 862 |

The Cross-country Traffic Act (CTA 1710/1995) enables the establishment of a snowmobile route. This route may be established either through a snowmobile route survey or by agreement between the land owner and the route keeper (CTA 1710/1995 section 13.1). The right shall not be established if it causes significant harm to private or public interest. The right may be established without the approval of the owner of the land or water area if the route is needed for creating a public means of communication or for public recreation use and it does not cause significant harm to the land owner or reindeer management. (CTA 1710/1995 section 16) There are 249 registered snowmobile routes in the cadastre (JAKO 2012).

According to section 8.2 of the FA (286/1982), a person who lives in a municipality other than temporarily has the right to net fishing of some fish species in a water area that is not a public water area and is located in the area of a municipality in the outer archipelago or next to the open sea. The boundary between this area and the open sea may be determined in a cadastral survey upon the initiation of the ELY centre[31].

According to the Mining Act (MA 621/2011), a limited use or other right for an area supporting mining activities may be established (Table 5.6) if the activities planned in the area cannot be organised in some other way. The supporting area shall be located next to the mine and it shall be necessary for roads, transport equipment, power or water systems, sewerage or underground routes. The use right for the mining area is permitted by the Council of State as an expropriation

[31] ELY centre (in Finnish Elinkeino- liikenne- ja ympäristökeskus): Centre for Economic Development, Transport and the Environment.

permit for a mining area. (MA 621/2011 sections 19; 20; 49) In total there are 363 registered rights according to the MA (621/2011) in the cadastre, of which almost 300 are mining patents and the rest are patent's use areas and additional areas (Table 5.11). (JAKO 2012)

**Table 5.11** Rights according to the Mining Act (621/2011) (JAKO 2012)

| Code | Type | Number |
|---|---|---|
| 701 | Mining patent | 293 |
| 702 | Mining patent's use area | 34 |
| 703 | Mining patent's additional area | 36 |
| TOTAL | | 363 |

According to the Outdoor Recreation Act (ORA 606/1973), it is possible to establish a recreation route and some additional areas for the route (Table 5.11). The route is established in a recreation route survey and after establishment the use right of the land transfers to municipality. For the handover of use right and harm and damages caused by the handover, compensation is paid according to section 8 of the ORA (606/1973) to the land owner or holder of the right. There are nearly 200 registered rights according to the ORA (606/1973), of which 172 are routes themselves (Table 5.12). (JAKO 2012)

**Table 5.12**. Rights according to the Outdoor Recreation Act (606/1973) (JAKO 2012).

| Code | Type | Number |
|---|---|---|
| 1501 | Outdoor recreation route | 172 |
| 1502 | Rest area of outdoor recreation route | 25 |
| 1503 | Additional area of state's campsite | 0 |
| TOTAL | | 197 |

According to the Expropriation Act (EA, 603/1977) in a cadastral survey for expropriation procedure may be established ownership right or use right for an area if it is needed by public interest. The right may be expropriated for an electric transmission line, natural gas pipe or radar station, for example. (Lukkarinen 2006, p. 148) Table 5.13 presents the rights and their numbers in the cadastre.

**Table 5.13.** Registered rights in the cadastre-based expropriation (JAKO 2012).

| Code | Type | Number |
|---|---|---|
| 1101 | Surroundings of a radar station | 0 |
| 1102 | Approach area of airport | 1 |
| 1103 | Electric transmission line | 2 085 |
| 1104 | Special right according to the EA (603/1977) | 67 |
| 1105 | Natural gas pipe | 203 |
| 1106 | Special right, pipe or similar | 42 |
| 1107 | Electric and data transmission line | 133 |
| TOTAL | | 2 531 |

Since the electric transmission lines, approach areas of airport, natural gas pipe or other pipes and electric and data transmission lines are established by use right rather than ownership, they are registered in the cadastre as use rights. In total there are a little over 2 500 registered use rights in the cadastre, of which most are established for electric transmission line. (JAKO 2012)

## 5.4 Latent right

A latent right is a right that is not yet executed in a property. When the right is executed, the subject of the right may be a person or another real property and the right is then classified according to its specific characteristics as a common, property-to-property right, person-to-property right, public advantage or public regulation. (Paasch 2008, p. 126)

The object of a latent right is the connection between a latent right and real property. It cannot be defined whether a latent right is property-to-property or person-to-property right, public restriction or advantage before it is executed. In the LCDM the only type of right that is debarred from the latent right is monetary liability. (Paasch 2011, p. 102; Paasch 2008, p. 126)

Normally the latent right follows the real property in a transaction process when the real property is transferred. (Paasch 2008, p. 126) However in Finland, the latent right may be established when a real property is transferred. This applies in cases where the municipality is able to use its pre-emption right.

Latent right is a right which is not yet executed, but may be executed in the future. If the right is then later executed, it is no longer a latent right and is removed to another right category, depending on the object and subject of the right. (Paasch 2008, p. 126) It shall be noted that a lien is not seen as a latent right but is classified in its own category.

**Table 5.14** The object, characteristics and definition of latent right based on Paasch (2008, p. 126) and Paasch (2011, p. 102) and in the Finnish context.

| Class name | Object | Characteristics (international) (Paasch, 2008 p. 126) | Characteristics (Finland) |
|---|---|---|---|
| Latent right | Connection between a latent right and real property | • A latent right waiting to be executed on or by a real property<br>• Regulating the exploration of a real property by another real property or person<br>• When a real property is sold or otherwise transferred the right normally follows with it<br>• The right will be classified as a common right, Property-to-property right, person-to-property right, public regulation or public advantage when executed, depending on its specific characteristics<br>• The right can be beneficial or encumbering to ownership<br>• The right does not contain security for payment and other financial interests, such as a mortgage. These rights are placed in the lien class | • A latent right waiting to be executed on a real property<br>• When a real property is sold or otherwise transferred the right normally follows with it<br>• In some cases the latent right is created when a real property is sold |
| Definition: a right which is not yet executed on a real property. | | | |

In Finland the most common example of a latent right, although seldom used, is pre-emption right which belongs to a municipality. The right is regulated by the Act on Pre-emption (608/1977). The pre-emption right of a municipality gives the municipality the right to replace a buyer in a real property transaction with the same contractual stipulation that the original transaction had. This pre-emption right may be applied in cases when a real property, unseparated parcel or designated share of real property is located in an area of the municipality. The pre-emption right may not be used if the area of transferred property is less than 5000 square meters (3000 square meters in Helsinki, Espoo, Vantaa and Kauniainen). In addition, the right may not be used in cases where the conveyor and acquirer are close relatives or the acquirer might inherit the conveyor. (Vitikainen 2009, p. 61) When realised, the pre-emption right would be categorised under "Public restriction".

Another example of latent right is limited use right (person-to-property right, see section 5.3.1) in a case where the parties have agreed on the right, but the right gains its legal effect on an agreed date in the future. The right may even be entered into the title and mortgage register. Also lease or other use rights, for example hunting, may be agreed to be latent for some years. Normally if the right is latent for a longer period (several years), it is not entered into the register. (NLS 2014c, p. 224)

## 5.5 Monetary liability

Monetary liability is a financial security for payment. This right is also a latent right by nature but in the LCDM it is classified as a separate class because of its financial nature. The most common example of monetary liability is a mortgage. (Paasch 2011, p. 62; Paasch 2008, p. 126-127) The owner of a real property is able to gain a mortgage in order to use his property as security for payment and he receives a mortgage document as a certificate of the right (see Table 5.15). (Jokela et al. 2010, p. 239; NLS 2014, p. 285)

Because the monetary liability is used as a security for payment, there are consequences if the duty or debt the monetary liability is used to secure is not fulfilled. In that case the real property may be a subject of forced sale. Traditionally a monetary liability is seen as encumbering to the ownership right, but Paasch describes it to be either beneficial or encumbering. (Paasch 2011, p. 62-63)

Monetary liability lasts normally until the debt or credit has been satisfied. (Paasch 2008, p. 127; Vaskovich 2012, p. 60) In Finland, a mortgage is valid until the mortgage document is null and void. The mortgagor defines the value of the mortgage and the mortgagee is liable to define whether the mortgage is sufficient as debt collateral. (NLS 2014c, p. 284)

**Table 5.15** The object, characteristics and definition of monetary liability based on Paasch (2008, p. 126) and Paasch (2011, p. 102) and in the Finnish context.

| Class name | Object | Characteristics (international) (Paasch, 2008 p. 126-127) | Characteristics (Finland) |
|---|---|---|---|
| Monetary liability | A connection between a financial right or interest that a creditor has and a real property | • A legal right or interest that a creditor (person or real property) has in another's real property<br>• Lasting usually until a debt or duty that it secures is satisfied<br>• A latent, financial security for payment<br>• The real property is used as security for payment and can be subject to forced sale<br>• When executed, the Monetary Liability will be transferred to Person-to-property right or Real property right depending on the type of creditor<br>• The right can be beneficial or encumbering to ownership | • A legal right that a creditor has in another's real property, unseparated parcel, designated share of a real property, lease or use right<br>• A latent, financial security for payment<br>• Lasting until the mortgage document is null and void |
| Definition: a latent, financial security for payment. | | | |

The object of monetary liability is a connection between a creditor's financial right or interest and a real property. In LCDM the monetary liability is classified as person-to-property right or property-to-property right, depending on the type of creditor. (Paasch 2008, p. 126; 2011, p. 104) In Finland, the creditor is usually a person (natural or legal person), so the monetary liability will be classified as a person-to-property right when executed and also registered in the land register as a mortgage. (Jokela et al. 2010, p. 239; NLS 2014c, p. 273)

In Finland, the Land Code (540/1995) regulates the mortgage system. The right is registered in the title and mortgage register maintained by the NLS. The mortgage may be allocated to a real property, an unseparated parcel, designated share of a real property, lease or a use right. The regulations concerning a mortgage on real property, unseparated parcel or designated share of a real property are included in chapter 16 of the LC (540/1995) and the regulations concerning mortgage of a lease or a use right in chapter 19 of the LC (540/1995). It is also possible to gain a mortgage for several real properties together (joint mortgage) (Jokela et al. 2010, p. 421)

## 5.6 Public regulations

Along with private rights presented in sections 5.1-5.5., there are also public regulations in the LCDM and also in the cadastre. Paasch (2012b, p. 6) classifies the public regulations as those which limit and those which benefit the ownership right. Figure 5.7 illustrates the influence of public regulations on the ownership right.

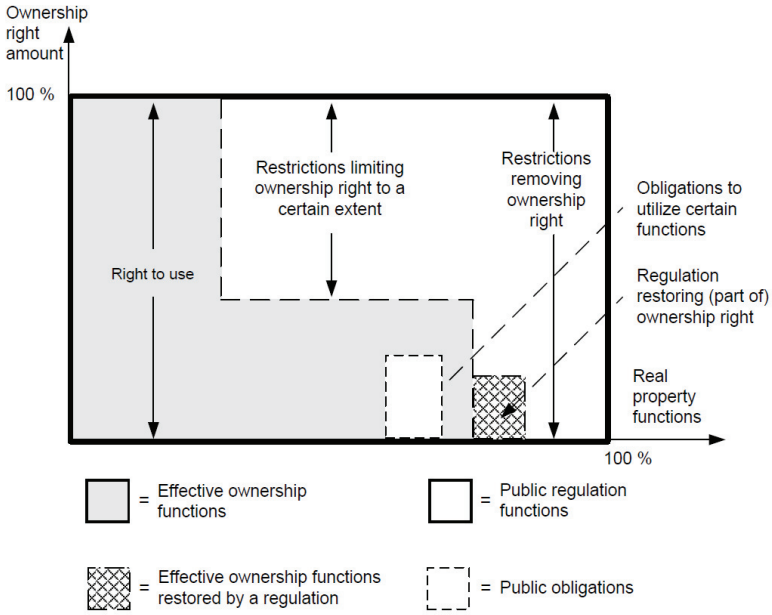


**Figure 5.7**. Public regulations which are influencing the ownership right. (Paasch 2012b, p. 9, referring Ekbäck 2000).

In a case where the ownership right is not restricted at all, the owner is allowed to use the property in any way he/she wants. In other words, everything that is not prohibited is allowed, and if nothing is prohibited, everything is allowed. (Paasch 2012b, p. 6) This case is only theoretical and nowadays the ownership right is always restricted in some way (Hespanha et al. 2009, p. 14; Virtanen 2004, p. 32).

Paasch (2012b, p. 22-23) approaches the classification of public regulations from the point of view whether the regulation can be seen as an advantage, restriction or obligation to a real property ownership. The regulations are then further classified based on the object of the regulation, including whether the object is a group of real properties defined in the legislation (general) or a specifically limited and defined group of properties defined in a specific decision (Paasch 2012b, p. 10).

Virtanen (2004, p. 33) classifies public restrictions and responsibilities as follows: restrictions concerning the actual use of land; restrictions concerning the freedom of contract; responsibility to accept or participate; and responsibility to accept compulsory acquisition. In practice there are three categories;

the responsibility to accept compulsory acquisition may be seen as a specification of responsibility to accept or participate. As an example of a more narrow spectrum of administrative public regulations, Hespanha et al. (2009, p. 16-17) present the Portuguese regulations as all different types of zoning areas.

Hespanha et al. (2009, p. 14-18) approach the classification of public regulations from the implementation point of view. Public regulations are implemented by using expropriation, requisition and administrative servitudes. Paasch initially classifies the public regulations into two categories; those which are beneficial and those which limit the ownership right (see Figure 1.9. Legal Cadastral Domain Model; Paasch 2012a, p. 26). As beneficial public regulations (public advantage) he categorises public-general advantage and public-specific advantage. As limiting public regulations (public restrictions) he categorises public-general restrictions which may be public-general prohibitions or public-specific obligations, and public-specific restrictions which may be public-specific prohibitions or public-specific obligations. (Paasch 2012b, p. 35, 37)

In the following subchapters the public regulations in the Finnish context are presented using the Paasch's classification (Paasch 2012a, p. 26; 2012b, p. 35, 37) and by integrating in this classification with the categories of Virtanen (2004, p. 33).

### 5.6.1 Public advantage

Public advantage is seen as a public regulation which creates some advantage to the ownership of a real property (Table 5.15). The advantage may be for example a permission, dispensation or concession which allows the owner of the real property to perform some activities on his/her property. If the advantage is created through permission it can be stated that the permission is an interaction between prohibition or obligation, as otherwise the advantage would not exist. (Paasch 2012b, p. 9-10)

**Table 5.16** The object, characteristics and definition of Public advantage based on Paasch (2008, p. 127) and in the Finnish context.

| Class name | Object | Characteristics (international) (Paasch, 2008 p. 127 | Characteristics (Finland) |
|---|---|---|---|
| Public advantage | A connection between a beneficial public imposed regulation and a real property | • Publicly imposed advantage<br>• Beneficial to ownership and use of real property | • Restoring the owner's rights<br>• Beneficial to owner's rights |
| Definition: Publicly imposed advantage which is beneficial to ownership and use of real property | | | |

The object of a public advantage is a connection between a real property and a publicly stipulated regulation which is beneficial to the ownership and use of real property. It is notable that a public advantage is a dispensation from the

existing regulations valid in the neighbouring areas. This means that for example a building permit may be seen as a public advantage. (Paasch 2012b, p. 13; Paasch 2008, p. 127)

The concept of public regulation creating some advantage to the real property ownership and use is not widely recognised in the Finnish literature. It seems that the Finnish literature sees the permissions more as restoring parts of the owners use right which is limited by regulations, not as an advantage (Paasch 2012b, p. 22; Virtanen 2004, p. 32)

When using the LCDM to further classify the public advantage, there are public-specific advantages and public-general advantages to be defined. The definition of a public specific advantage is "Publicly granted permission to perform activities for a limited and defined set of real properties, otherwise regulated by a public-specific obligation or public-specific prohibition, thereby restoring parts of the owners use right" (Paasch 2012b, p. 22). The specific advantage may be for example a building permit or an environmental permit (Environmental Protection Act 86/2000) allowing some actions in an area which may cause some environmental pollution (Paasch 2012b, p. 13-14).

A general public advantage is not a general permit valid for certain kinds of real properties: this situation also belongs under the concept of "public-specific regulation". The definition for public-general advantage is "Change in legislation beneficial for certain types of real property at a general level, e.g. properties within urban areas, properties being subject to industrial forestry or properties containing cultural monuments. Beneficial to real property ownership" (Paasch 2012b, p. 22).

### 5.6.2 Public restrictions

Besides the information listed previously in this chapter, there are public restrictions to be entered into the cadastre and that may also be seen as cadastral information. These restrictions may be found in legislation and may change as the legislation changes. Virtanen (2004, p. 33) sees the statutes that state that land use may not cause unreasonable harm to the neighbouring real properties as a restriction to actual land use. This, however, is a restriction which is not registered into the cadastre. On the other hand, this can be seen as a responsibility from the neighbouring real property's point of view. The neighbouring real property (or its owner) has the responsibility to tolerate the use of the neighbouring real property to some extent. This can be seen in the Adjoining Properties Act (26/1920) and also for example in the Land Extraction Act (555/1981).

The LCDM classifies public restrictions into public-general restrictions and public-specific restrictions. Depending on the nature of the public regulation, the general and specific restrictions are classified further into prohibitions and obligations, either general or specific. (Paasch 2012b, p. 16) The public restriction is defined in Paasch (2012b, p. 22) as "Publicly imposed restriction prohibiting or mandating certain activities on real property". A Public-general restriction may be defined as a "Publicly imposed restriction prohibiting or mandating certain activities on certain types of real property at a general level,

e.g. properties within urban areas, properties being subject for industrial forestry or properties containing cultural monuments" and a public-specific restriction as "Publicly imposed restriction on doing certain activities or demanding certain obligations for a limited and defined set of real properties, based on specific legislation." (Paasch 2012b, p. 23)

In the following sections the restrictions are presented by classifying them as general or specific restrictions and further to prohibitions and obligations. It is notable that all the restrictions are limiting real property ownership by definition.

*Public prohibitions*

Public-general prohibition may be defined as a "Publicly imposed prohibition affecting certain types of real property at a general level, e.g. properties within urban areas, properties being subject to industrial forestry or properties containing cultural monuments." (Paasch 2012b, p. 23) Public-specific prohibition may be defined as "Publicly imposed restriction prohibiting certain activities for a limited and defined set of real properties, not to be performed by the real property owner." (Paasch 2012b, p. 23)

Restrictions concerning the actual use of land are mostly included in different stages of land use planning, which is regulated by the Land Use and Building Act (132/1999). In practice, these restrictions are stricter in the detailed planning area and loosen when moving to areas with dispersed development. In addition to the restrictions caused by planning, other legislation also includes restrictions on the actual use of land. Virtanen (2004, p. 33) along with others, mentions the Outdoor Recreation Act (606/1973), the Land Extraction Act (555/1981), the Aviation Act (1194/2009) and the Mining Act (621/2011) as acts including restrictions (Virtanen 2004, p. 33).

There may be building restrictions according to the LUBA (132/1999) section 53. These restrictions concern building in an area where a local detailed plan is being drafted or amended. The building restriction also concerns areas where a local master plan is approved but the approval has not yet taken legal effect. In an area of a local detailed plan, the restrictions also concern alteration of the landscape. (Table 5.17).

**Table 5.17** Building prohibitions in the cadastre. (JAKO 2012)

| Code | Type | Number |
|---|---|---|
| 2211 | Building prohibition for compiling or changing a local detailed plan | 72 |
| 2212 | Extended building prohibition for compiling or changing a local detailed plan | 134 |
| 2213 | Building prohibition, local detailed plan not legally effective | 3 |
| 2214 | Building prohibition (Åland) | 0 |
| TOTAL | | 209 |

The situation numbers of building prohibitions in Table 5.17 vary from year to year, since the prohibitions may be given for a maximum of two years and extended in total for eight years (LUBA 132/1999 section 53). In 2012, some 209 registered building prohibitions were given based on the LUBA 132/1999. (JAKO 2012)

According to section 17.5 of the WA (587/2011), permissions granted based on the WA (587/2011) shall be entered into the cadastre. The new WA (587/2011) came into force at the beginning of 2012, superseding the previous WA (264/1961). Both of the acts regulate the information to be entered into the cadastre, but there are few changes in the new Act compared to the previous one concerning the cadastral information. Regulated in the WA (587/2011), the permissions to be registered into the cadastre may consider right of:

1) building a channel or other construction in an area owned by someone else
2) submerging an area owned by someone else permanently under water
3) using water power belonging to a real property owned by someone else or a common area
4) constantly using an area owned by someone else by some other means.

In addition, an entry to a cadastre shall be made in situations where:

1) a decision concerning an area becoming a protected area has taken the legal effect or its use has been restricted by some other means
2) an agreement concerning a certain real property, by which the permission holder has the right to put an area owned by someone else permanently under water.

An entry shall also be made for an agreement that has taken legal effect that changes the right of use or restriction of use, a decision made by a municipal environmental protection authority, and a decision made in ditching proceedings (WA 587/2011).

According to the repealed WA (264/1961), the decisions concern rights to build a watercourse or other building (in an area owned by someone else), submerging an area permanently under water, using water power or other use right belonging to someone else's real property, buffer zone or other restriction. Table 5.18 presents the situation of the cadastre in 2012, so most of the restrictions are registered according to the repealed WA (364/1961). In total there are 410 according to the WA (364/1961) and the WA (587/2011) registered restrictions in the cadastre. Some of the restrictions to be registered may be seen as public restrictions, whereas others may be considered as private person-to-property rights. In terms of the person-to-property rights, see sectionr 5.3.3 "Person-to-property rights according to other legislation".

**Table 5.18** Registered rights in the cadastre according to the WA (264/1961) and the WA (587/2011) (JAKO 2012).

| Code | Type | Number |
|---|---|---|
| 1401 | Buffer zone of water intake | 170 |
| 1402 | Damming area | 29 |
| 1404 | Water intake | 132 |
| 1405 | Building, equipment or other according to the WA (587/2011) | 76 |
| 1406 | Watercourse | 3 |
| TOTAL | | 410 |

According to section 16 of the Act on Burial (457/2003), a private grave shall be entered into the cadastre and its land area may be taken into use again 25 years after the burial at the earliest. However, there are no registered areas concerning private graves in the cadastre (JAKO 2012).

According to section 6 of the Antiquities Act (295/1963), an entry of a permanent ancient monument shall be made in the cadastre. There are 406 of these kinds of entries in the cadastre (JAKO 2012).

According to section 8 of the Nuclear Energy Decree (161/1988), the disposal site of nuclear waste and restrictions to performing certain measures shall be entered into the cadastral system. There is one registered final disposal place for nuclear waste in the cadastre (JAKO 2012).

Virtanen (2004, p. 34) notes that there are several cases in Finnish legislative history where the freedom of contract has been interfered with by the public concerning land use, ownership or tenure. As an example, the Act on Rearranging Leased Land in Urban Areas (120/1936) was enacted to prevent the lessee from ending up in an unreasonable position regardless of the contract he has agreed. A current example of interference of the freedom of contract is the right of pre-emption which is executed by the municipality in certain conditions (see section 5.4 “Latent right”).

According to chapter 9 of the FA (286/1982), a fishing area[32] may establish a closed area for maximum period of ten years. The closed area functions as a spawning place, habitat or passageway for valuable fish. The decision to establish a closed area may include restrictions on when and how the fishing is done, taking stones, gravel or other substances from the bottom, or hiking, the floating of timber or other activities. The boundaries of a closed area may be determined in a cadastral survey, if wanted.

[32] Fishing area forms a uniform area for the management of fishing and where it is appropriate to apply uniform methods for fishing. The members of the fishing area are fishery collectives, owners of a water area, the organisations operating in the fishing area, and organisations attending to the interests of leisure-time fishermen. (FA 286/1982 section 68; 71)

**Table 5.19** Public registered restrictions in the cadastre according to the Fishing Act (286/1982) (JAKO 2012).

| Code | Type | Number |
|---|---|---|
| 401 | Boundary between inner and outer archipelago | 2 |
| 402 | Fish passage | 15 |
| 403 | Prohibition to fish at lower course of dam | 0 |
| 404 | Prohibition to fish in waterway rich in salmon and powan | 0 |
| TOTAL | | 17 |

*Public obligations*

A public-general obligation may be defined as a "Publicly imposed restriction demanding certain activities on certain types of real property at a general level, e.g. properties within urban areas, properties being subject for industrial forestry or properties containing cultural monuments." (Paasch 2012b, p. 23)

A public specific obligation may be defined as a "Public-specific obligation definition: Publicly imposed restriction demanding certain activities from the real property owner, for a limited and defined set of real properties, based on specific legislation." (Paasch 2012b, p. 23)

According to the CD 970/1996 section 7, the cadastre shall contain information about legally binding local master plans and local detailed plans, including separate local detailed shore line plans (Table 5.20).

**Table 5.20** Entries in the cadastre concerning land use planning. (JAKO 2012)

| Code | Type | Number |
|---|---|---|
| 2001 | Master plan | 2 012 |
| 2101 | Local detailed plan | 1 811 |
| 2102 | Local detailed plan (guiding plot division) | 15 717 |
| 2103 | Shoreline detailed plan | 6 209 |
| 2107 | Building plan (Åland) | 0 |
| 2109 | Building plan for underground premises | 0 |
| 2150 | Area with local detailed plan | 1 157 |
| TOTAL | | 26 906 |

There are nearly 27 000 entries in the cadastre concerning land use plans for master and local detailed plans, as well as for shoreline detailed plans (JAKO 2012). These entries may be seen, according to definition, as public-specific prohibitions or obligations, as well as a restriction or an advantage. On one hand, the plans restrict the ownership of a real property, and on the other hand they obligate the owner of a real property to perform certain activities.

When a detailed plan is compiled to an area, there might also be a binding subdivision plan included, or a subdivision plan may be compiled separately, and then it is always binding. (Jussila 2000; LUBA 132/1999, section 78.1; LUBD section 37). These binding subdivision plans shall be entered into the cadastre, but there were no entries in 2012 (JAKO 2012).

Virtanen (2004, p. 34) classifies public responsibilities into two categories; responsibility to accept or participate; and responsibility to accept compulsory acquisition. Based on legislative responsibility, a land owner may have to accept some use or actions in his land, of which Virtanen (2004, p. 34) mentions everyman's right and the responsibility to allow an establishment of a right of way. In addition, some allowance according to other legislation is required – according to the Water Act (587/2011), the owner of a water area is responsible for allowing prohibitions of the Act, as well as allowing others to move or swim in his water area – to mention a few. (Virtanen 2004, p. 34)

Areas registered as plots or public areas in the cadastre shall contain information about the purpose of use regulated in local detailed plan. Other real properties formed according to local detailed plan shall have information about their purpose of use as it was regulated at the time the real properties were formed.

A land owner has the responsibility to allow community infrastructure equipment to be located on his property according to section 161 of the LUBA (132/1999). According to section 163 of the same Act, a land owner also has the responsibility to allow some minor equipment, such as light, to be located in his property. There are 159 entries concerning community infrastructure equipment and three entries concerning minor equipment in the cadastre (JAKO 2012).

According to APA (26/1920 section 16), the owner of real property has the responsibility to tolerate his neighbour or other living nearby to construct a cable for telecommunication or electricity and erect pillars needed for them. However, they shall not be placed via a plot, garden or park, they shall not cause significant harm, and constructing them must not be possible some other way or cause unreasonable costs. This obligation of tolerance is, however, not registered.

According to section 164.4 of the LUBA (132/1999), there might be a need to establish some joint arrangements between properties in order to implement a local detailed plan. These rights shall be also registered and there are 30 registered joint arrangements in the cadastre (JAKO 2012).

A nature conservation area established according to section 24 of the Nature Conservation Act (1096/1996) in a privately owned land area shall be entered into the cadastre. This may be considered to be both a responsibility and/or a restriction, depending on the purpose of conservation. In addition, if there is a temporary protection order (maximum 20 years) concerning a certain area, it shall be entered into the cadastre. According to section 11.2 of the Nature Conservation Decree 160/1997, protected natural types and hosts of species under strict protection shall be entered into the cadastre (Table 5.21).

**Table 5.21** Entries in the cadastre according to the Nature Conservation Act (1096/1996) (JAKO 2012).

| Code | Type | Number |
|---|---|---|
| 501 | Natural monument | 1 348 |
| 502 | Conservation area | 8 502 |
| 503 | Conservation area (Åland) | 48 |
| 504 | Protected habitat | 982 |
| 505 | Host of species under strict protection | 165 |
| TOTAL | | 11 045 |

In addition, some agreements concerning sustainable forestry shall be entered into the cadastre. These kinds of agreements are aids to be granted for environmental support for sustaining biological diversity as regulated in section 16 of the Act on the Financing of Sustainable Forestry (544/2007) section 16. The previous Act on the Financing of Sustainable Forestry (1094/1996) also enabled agreements on the trading of natural values (section 19a) but the possibility for that was experimental and expired in 2007 (Table 5.22). (GP 177/2007, p. 3).

**Table 5.22** Registered agreements in the cadastre according to the Act on the Financing of Sustainable Forestry (544/2007) and the Act on the Financing of Sustainable Forestry (1094/1996). (JAKO 2012)

| Code | Type | Number |
|---|---|---|
| 1800 | Agreement on environmental support | 654 |
| 1806 | Agreement on trade of natural value | 30 |
| TOTAL | | 684 |

Despite the fact that the agreements on the trade of natural values are not possible to make anymore, there are still 30 of them registered in the cadastre, because the time for a trading agreement is 10-20 years (Rakemaa 2007, p. 88). There are slightly more than over 650 agreements on environmental support for sustainable forestry in the cadastre. (JAKO 2012) The trade of natural values is an agreement between the land owner and the buyer of natural values (e.g. the state, Finnish Natural Heritage Foundation) where the land owner undertakes to attempt to restore or add natural value to the financial support. (Rakemaa 2007, p. 88)

## 5.7 Summary of the rights

When examining Finnish property rights based on the LCDM, there are various types of rights under one LCDM class. The previous sections shed light on the system of property rights in Finland in a rather detailed manner, whereas this chapter is designed to clarify and give an overview of all the rights. Table 5.23 presents the “left side” (see section 1.5.5 “Legal Cadastral Domain Model”) of the LCDM, in other words the different types of property-to-property rights, commons, person-to-property rights, latent rights and monetary liabilities in

Finland. Table 5.24 presents the "right side" of the LCDM, in other words different types of public advantages, prohibitions and obligations.

Property-to-property rights are registered in the cadastre, and there are different types of easements, rights of way, right of water power and special interests. Common areas are land and/or water areas or common forests. The shares of commons are registered in the cadastre. Person-to-property rights may be registered in the cadastre or in the land register, depending on their types. Person-to-property rights according to the Land Code are registered in the land register, while other person-to-property rights (rights regulated in the Highways Act, Railways Act, Outdoor Recreation Act, Fishing Act, Water Act, Cross-country Traffic Act, Mining Act and Expropriation Act) are registered in the cadastre. When a latent right is a person-to-property right according to the Land Code, it is registered in the land register. Otherwise latent right is not registered as latent right, but when executed, is then registered in appropriate register. Monetary liabilities are normally mortgages, which are registered in the land register.

**Table 5.23** Summary of types of property-to-property rights, commons, person-to-property rights, latent rights and monetary liability in Finland and whether they are registered in the cadastre or the land register.

| | **Property-to-property right** | **Common** | **Person-to-property right** | **Latent right** | **Monetary liability** |
|---|---|---|---|---|---|
| Type | Easement<br>Right of way<br>Right of water power<br>Special interest | Common area<br>Common forest | Person-to-property rights in LC<br>Person-to-property rights in HA and RA<br>Outdoor Recreation Act<br>Fishing Act<br>Water Act<br>Cross-country Traffic Act<br>Mining Act<br>Expropriation Act | Latent right | Mortgage |
| Registration in the cadastre/ Land register | Cadastre | Cadastre | Cadastre / Land register | Land register | Land register |

**Table 5.24** Summary of types of public advantages, public prohibitions and public obligations in Finland and whether they are registered in the cadastre or land register.

| | **Public advantage** | **Public prohibition** | **Public obligation** |
|---|---|---|---|
| Type | Building permit<br>Environmental permit for hazardous action | Building prohibition<br>Prohibitions according to the WA<br>Natural monument<br>Nuclear waste<br>Prohibitions in the FA | Land use plans<br>Community infrastructure equipment<br>Nature conservation<br>Agreements concerning sustainable forestry |
| Registration in the Cadastre/ Land register | Other register | Cadastre | Cadastre |

Public advantages are mostly building permits, but may also be e.g. permits for environmentally hazardous action. These advantages are not registered in the cadastre or land register. Public prohibitions may be building prohibitions, prohibitions regulated by the Water Act, natural monuments, restrictions concerning nuclear waste, and prohibitions posed in the Fishing Act. These prohibitions are registered in the cadastre. Public obligations relate to land use planning, the placing of community infrastructure equipment, nature conservation and agreements concerning sustainable forestry. They are registered in the cadastre.

# 6 FI Country profile

The ISO 19152 Land Administration Domain Model already has country profiles for several countries in Annex D (Portugal, Queensland Australia, Indonesia, Japan, Hungary, the Netherlands, the Russian Federation and South Korea). This chapter presents one option for an administrative package country profile of Finland based on the observations made in chapter 5.

The core of the LADM is created on four classes, which are LA_Party, LA_RRR, LA_BAUnit and LA_SpatialUnit. LA_Party class consists of parties, LA_RRR consists of rights, restrictions and responsibilities, LA_BAUnit consists of basic administrative units and LA_SpatialUnit consists of spatial units. Each class has its own unique attributes, which are described below.

The LADM classes LA_Party, LA_PartyMember, LA_RRR, LA_BAUnit, LA_SpatialUnit, LA_SpatialUnitGroup, LA_RequiredRelationship SpatialUnit, LA_RequiredRelationshipBAUnit, LA_Level, LA_Boundary FaceString, LA_BoundaryFace and LA_Point are subclasses of class VersionedObject. The class VersionedObject is needed to manage historical data in the model. This way, the model may be reconstructed at any historical moment. The rest of the LADM classes inherit the VersionedObject through the classes mentioned above. (ISO 19152:2012, p. 12)

The LCDM has been studied and found to be suitable for expanding the LADM legal profiles and code lists for classification of the LADM classes “Rights”, “Responsibilities” and “Restrictions”. These classes are a part of the administrative package in the LADM. (Paasch et al. 2013, p. 1, 14) In this study, chapter 5 reveals that there are various national rights which are possible to classify under fewer right categories based on the LCDM. This chapter is written to provide an understanding of how the LADM may be expanded by using LCDM in the Finnish context.

This chapter presents first the administrative package in a detailed manner (for an overview of the whole LADM, see section 1.5.4 “ISO 19152 Land Administration Domain Model”). The LADM party package is closely associated with the administrative package and is therefore also presented. Then the profile for Finland is presented.

## 6.1 Party package

The main class in the Party Package is LA_Party. The attributes are identifier of the party in an external registration, the name of the party, the identifier of the party, the role of the party in the data update and maintenance process, and the type of the party. The attributes, their value types and multiplicity are presented in Table 6.1.

**Table 6.1** The attributes of class LA_Party.

| Attribute | Value type | Multiplicity |
|---|---|---|
| **extPID (the identifier of the party in an external registration)** | Oid (Object identifier) | 0..1 |
| **name (the name of the party)** | CharacterString | 0..1 |
| **pID (the identifier of the party)** | Oid | 1 |
| **role (the role of the party in the data update and maintenance process)** | LA_PartyRoleType | 0..* |
| **type (the type of the party)** | LA_PartyType | 1 |

The identifier of the party in an external registration (extPID) is identified by the object identifier (Oid). The number of the identifier in this model may be zero or one since there may or may not be external registration. The name of the party (name) is written in letters and the number of names between 0..1. The identifier of the party (pID) is identified by object identifier, which may only be one. The role of the party (role) in the data update and maintenance process is described by code list LA_PartyRoleType. This code list includes all the different roles the different parties (surveyor, conveyor, etc.) may have in the process of updating or maintaining land administration in a specific case. The type of the party (type) is described by code list LA_PartyType. This code list includes all the possible party types there might be for the land administration process. In case the LA_Party Type code is not implemented, then the LA_PartyRoleType shall remain unimplemented as well.

The LA_GroupParty code list includes all the possible group parties that might be involved in land administration processes. The class LA_PartyMember is an optional class between LA_Party and LA_GroupParty. It should be noted that the attribute “share” in the LA_PartyMember class is the fraction of the whole and if implemented, the sum of the shares of group party members shall be 1. It shall be noted that shares, however, are not always defined. An example of a case like this is a situation where several real properties use the same easement, e.g. a boat harbour.

An example code list for LA_PartyType is presented in ISO 19152 (p. 101). The examples given in the list are: basic administrative unit, group, natural person and non-natural person. In addition to this, an example code list for LA_GroupPartyTypes is also given. The group party types are: association, group of basic administrative units, family and tribe. The code list for PartyRoleType is also given and the examples are: bank, certified surveyor,

citizen, conveyor, employee, farmer, money provider, notary, state administrator, surveyor and writer.

Traditionally, Finnish land management literature refers to the actors in cadastral system only as the right holder (ownership or other). This means that some of the actors listed in ISO 19152 code lists are recognised in the literature. Vitikainen (2009, p. 33) mentions the possible subjects for object-oriented cadastral system as being a natural person, a legal person (non-natural person, e.g. a municipality), a defined group or an undefined group. But as a basic administrative unit may also be a right holder, it should be added to the FI_PartyType code list. The code list for FI_PartyType consists of natural person, non-natural person, group and basic administrative unit.

Vitikainen (2009, p. 7, 33) states that a group may be defined (limited) or undefined. A defined group might be real property units involved in land division proceedings, in other words a group of basic administrative units. It may also be a family or a village. Different kinds of associations (e.g. private road maintenance association) can also be a type of group party. An undefined group may be e.g. the users of an outdoor recreation route, since the "everyman's right" allows it. FI_GroupPartyType code list would be as follows: group of basic administrative units, association, family, village, and undefined.

The code list for LA_PartyRoleType includes the following indicators: bank, certifiedSurveyor, citizen, conveyor, employee, farmer, moneyProvider, notary, stateAdministrator, surveyor and writer. These are not traditionally listed in Finnish literature. The LA_PartyRoleType code list should cover all the different actors who have some kind of role in updating or maintaining the cadastral system. Lukkarinen (2006, p. 122; 126) presents the processes of real property subdivision and transaction and their actors. The actors in the subdivision process are owner, cadastral authority, registration authority and municipality. The actors in the transaction (besides the seller and buyer) are agent, public purchase witness, money provider, registration authority, district survey office and tax authority. The buyer and seller can be seen as "citizens", as well as the owner in the subdivision process. Nowadays the registration authority and cadastral authority are the same, the National Land Survey of Finland. As there is no system of certification of surveyors in Finland or a system of private legal surveyors in land administration tasks, there is only one "surveyor" in the code list. The code list for FI_PartyRoleType would be as follows: bank/money provider; surveyor; citizen; agent; public purchase witness; employee; state administrator; municipal administrator; and writer.

## 6.2 Classes of administrative package

Although the legal extension of LADM affects directly only on the administrative package, the links between administrative classes and classes of spatial package and party package are affected indirectly through associations (Figure 6.1). This is why the FI_Party and FI_SpatialUnit classes should be also examined when building the administrative country profile for Finland.

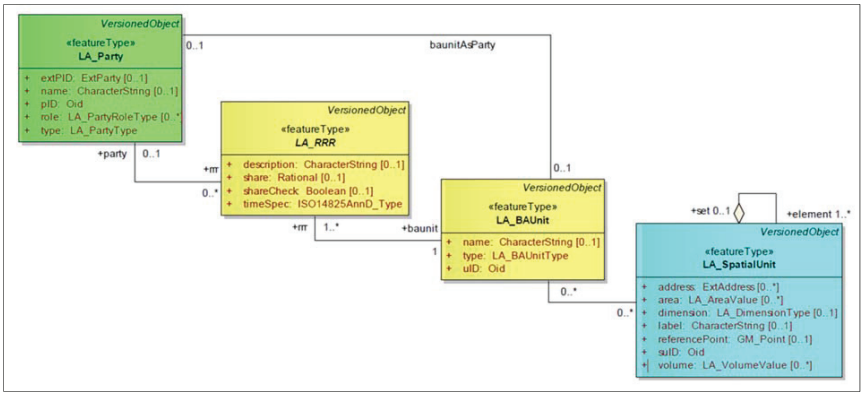


**Figure 6.1** The core classes of LADM with the link of BAUnit as a party (Lemmen et al. 2010, p. 5)

The administrative package contains two main classes: LA_BAUnit and abstract class LA_RRR, which has three specialisation classes (Table 6.2). A basic administrative unit is an instance of LA_BAUnit class. It is associated with the LA_Party class, because a party can be a basic administrative unit. A basic administrative unit is associated with zero or more spatial units and shall be associated to one or more right, restriction or responsibility. This means that a right, restriction or responsibility associated with a basic administrative unit is a prerequisite for its existence. It may be spatially associated to zero or more other basic administrative units through a required relationship. (ISO 19152:2012 p. 19)

**Table 6.2** Class names and explanations in administrative package (Lemmen 2012, p. 226)

| LADM name | Explanation | Meaning |
|---|---|---|
| **LA_RRR** | Rights, responsibilities and restrictions | Abstract class |
| **LA_Right** | Subclass of LA_RRR, rights | Action that a system participant may perform on or ue with an associated resource. Rights may be overlapping |
| **LA_Responsibility** | Subclass of LA_RRR, responsibilities | Informal or formal obligation to do something |
| **LA_Restriction** | Subclass of LA_RRR, restriction | Informal or formal entitlement to refrain from doing something |
| **LA_BAUnit** | Basic administrative unit | Administrative entity consisting of zero or more parcels (spatial units) |

The LA_RRR class has three specialisation classes which are LA_Right, LA_Restriction and LA_Responsibility. LA_Right class has land-related rights as instances. A right may be an ownership right or some other type of right. (ISO 19152:2012 p. 9) The rights in this research are classified according to the

LCDM created by Paasch (2012a), as property-to-property rights, commons, person-to-property rights, latent rights and monetary liabilities. The ownership right itself is seen as the core right in the LCDM (Paasch 2012a, p. 26). The classes of administrative package are listed in Table 6.2. The left column lists the official LADM name of the class and the right column gives an explanation for the class name.

The attributes, their value types and multiplicities of class FI_RRR are presented in Table 6.3. The left column describes the attribute, the middle column the value type of the attribute and the right column the multiplicity of the specific attribute.

**Table 6.3** The attributes, their value types and multiplicities of class FI_RRR.

| Attribute | Value type | Multiplicity |
|---|---|---|
| **description (description regarding the right, restriction or responsibility)** | CharacterString | 0..1 |
| **rID (the RRR identifier)** | Oid | 1 |
| **share (a share in an instance of a subclass of FI_RRR)** | Fraction | 0..1 |
| **shareCheck (indicates whether the constraint in class FI_BAUnit is applicable)** | Boolean | 0..1 |

The description regarding the right, restriction or responsibility is given in letters and the right, restriction or responsibility is identified by the object identification number (Oid). This Oid is the same as in the subclasses of the object identification number (use right unit number). The share is registered as a fraction and comes from the subclass of FI_RRR. There is a constraint requiring that the shares of the same subclass of FI_RRR shall equal one. The attribute shareCheck indicates whether this constraint of FI_BAUnit is applicable. The constraint regarding the shares is applied to rights, restrictions and responsibilities which are valid at the same time. (ISO 19152, p. 19-22)

The attributes, their value types and multiplicities of class FI_BAUnit are presented in Table 6.4. The left column describes the attribute, the middle its value type and the right column the multiplicity of the attribute.

**Table 6.4** The attributes, value types and multiplicities of class FI_BAUnit.

| Attribute | Value type | Multiplicity |
|---|---|---|
| **name (the name of the basic administrative unit)** | CharacterString | 0..1 |
| **type (the type of the basic aministrative unit)** | FI_BAUnitType | 1 |
| **uID (the identifier of the basic administrative unit)** | Oid | 0..1 |

The name of the basic administrative unit is written in letters and the type is collected from the FI_BAUnitType, which is a code list for the class FI_BAUnit. The identifier of the basic administrative unit is an object identifier, which is at the same time the register unit identifier.

The LA_BAUnit is a basic administrative unit which may be associated with LA_Party, since a basic administrative unit may be a party. (ISO 19152, p. 19-20) One basic administrative unit may consist of several different spatial units. It is also possible that a basic administrative unit may be registered without any spatial unit. The ISO 19152 allows it and the situation is not rare in the Finnish cadastre, since rights may exist without a physical space. (ISO 19152, p. 20; Vitikainen 2009, p. 5)

According to the legal definition, a real property comprises its area and certain rights attached to it. The rights are common, easement and similar types of rights and special interests. (see Hyvönen 1998, p. 4-5; RPFA 554/1995; Vitikainen 2009, p. 4-5) This legal definition contravenes the principles in ISO 19152.

A right or responsibility is associated to one party and one basic administrative unit and a restriction to zero or one parties (ISO 19152, p. 21). As shown in Figure 3.1 (Chapter 3. "The concept of real property in Finland"), a real property in Finland may consist of a physical area and/or legal dimensions. An easement or similar right to easement may, however, not create a real property *per se*. (GP 227/1994) This "duplicity" of rights is a question that can be solved when implementing the LADM in Finland. To be exact, the FI_BAUnit should be an instance class of FI_RRR in cases where a common or special interest creates a real property with no physical area.

The attributes, their value types and multiplicities of class FI_SpatialUnit are presented in Table 6.5. The left column describes the attribute, the middle its value type and the right column the multiplicity of the attribute.

**Table 6.5** The attributes, value types and multiplicities of class FI_SpatialUnit

| Attribute | Value type | Multiplicity |
|---|---|---|
| **area (the area of the 2D spatial unit)** | FI_AreaValue | 0..* |
| **dimension (the dimension of the spatial unit)** | FI_DimensionType | 0..1 |
| **extAddressID (the link to external address(es) of the spatial unit** | Oid | 0..* |
| **label (short textual description of the spatial unit)** | CharacterString | 0..1 |
| **referencePoint (the coordinates of a point inside the spatial unit)** | GM_Point (type from ISO 19111) | 0..1 |
| **suID (the spatial unit identifier** | Oid | 1 |
| **surfaceRelation (indicates whether a spatial unit is above or below the surface)** | FI_SurfaceRealtionType | 0..1 |
| **volume (the volume of the 3D spatial unit)** | FI_VolumeType | 0..* |

The area of the two-dimensional real property is described by numbers. Since three-dimensional real properties have become a part of everyday life in several countries, the LADM takes into account the three-dimensional space. (ISO 19152, p. 26-27; 32) The spatial unit has an attribute of dimension which is described by FI_DimensionType. The Finnish system at the present day does not allow the establishment of 3D-properties, so if the model would be implemented immediately, the dimension attribute could be excluded. However, the 3D-cadastre is on its way to Finland (see MAF 2008) and if implemented in the future, the dimension attribute may be also applied in the FI Country Profile. The same applies to attributes surfaceRelation and volume.

In the future, it should be also possible to register a property unit without any physical area. However, for technical reasons, this will require that the definition of real property is deconstructed and the rights are no longer part of a real property. They will remain attached to a real property and according to definition, follow the real property whenever the property is sold or otherwise transferred. The LADM connects the basic administrative unit and spatial unit in a manner that enables to register the basic administrative unit also without the area value. This feature could be applicable when registering legal dimensions which may not always have a physical area.

## 6.3 The legal extension of the Land Administration Domain Model

The legal extension of the LADM by using the LCDM concerns the administrative package, especially classes; rights, responsibilities and restrictions and their code lists. In addition, the legal profiles are expanded depending on whether the rights, responsibilities and restrictions are private or public.

The LADM extension on private rights, responsibilities and restrictions means that the LCDM is integrated in the LADM. However, the monetary liability class is left out of this extension, since it has existed in the LADM from the publication of the ISO 19152. Since the LADM is extended, there are new classes to be added in the model. The classes relate to LCDM right types, which are property-to-property right, person-to-property right, common and latent right. Paasch et al. (2013, p. 9-10; see also Paasch 2012a; Paasch 2008)) are very certain that all the rights in the LCDM can be either beneficial or encumbering to ownership. All the LCDM classes may create a right but at the same time also create a restriction or responsibility. For example a common is a right, but at the same time it may obligate the right holder to perform certain actions or for example obligate the holder to participate in maintenance. (Paasch et al. 2013, p. 9-10) The following classes are added in the LADM (Table 6.5):

**Table 6.5** The private law extension in LADM, new classes (Paasch et al 2013, p. 9-10)

| | | | |
|---|---|---|---|
| LA_PropertyToProperty Right | LA_CommonRight | LA_PartyToProperty Right | LA_LatentRight |
| LA_PropertyToProperty Restriction | LA_CommonRestriction | LA_PartyToProperty Restriction | LA_LatentRestriction |
| LA_PropertyToProperty Responsibility | LA_CommonRespon-sibility | LA_PartyToProperty Responsibility | LA_LatentResponsibility |

The new private legal classes which are added to the LADM are also added in the FI country profile. The classes under FI_PrivateRight are FI_PropertyToPropertyRight, FI_CommonRight, FI_PartyToPropertyRight and FI_LatentRight. Similar to this, the corresponding classes are added under FI_PrivateRestriction and FI_PrivateResponsibility.

Although chapter 5 discusses public advantage, to be systematic concerning the terms, public advantage is named as public right in the LADM legal extension (Paasch et al. 2013, p. 11; see chapter 5 "Towards a FI country profile). In addition to the administrative classes LA_RRR (and its subclasses) and LA_BAUnit, the following classes (Table 6.6) can be added to the LADM (Paasch et al 2013, p. 10-11):

**Table 6.6** New LADM classes concerning public legal profiles (Paasch et al. 2013, p. 10-11)

<table>
<tr><td colspan="3">LA_RRR</td></tr>
<tr><td rowspan="2">LA_Right</td><td rowspan="2">LA_PublicRight</td><td>LA_PublicGeneneralRight</td></tr>
<tr><td>LA_PublicSpecificRight</td></tr>
<tr><td rowspan="2">LA_Responsibility</td><td rowspan="2">LA_PublicResponsibility</td><td>LA_PublicGeneralResponsibility</td></tr>
<tr><td>LA_PublicSpecificResponibility</td></tr>
<tr><td rowspan="2">LA_Restriction</td><td rowspan="2">LA_PublicRestriction</td><td>LA_PublicGeneralRestriction</td></tr>
<tr><td>LA_PublicSpecificRestriction</td></tr>
</table>

The new public legal classes which are added to the LADM (Table 6.6) are partly added in the FI country profile. The FI_PublicResponsibility and FI_PublicRestriction are implemented in the FI country profile. The public legal extension classes are FI_PublicResponsibility and FI_PrivateRestriction. Paasch (2012b, p. 13) mentions that a public right (advantage) may be for example a permission, dispensation or concession which allows the owner of the real property to perform some activities on his property. However, this perspective of public advantage is not characteristic to the Finnish legislation and literature. Therefore, the LA_PublicRight is not implemented in this study in the FI country profile.

Finnish legislation separates the responsibilities and restrictions, but not specific and general responsibilities and restrictions. If needed, the FI_PublicRight and general and specific classes may be implemented later but in this study, the

classes FI_PublicResponsibility and FI_PrivateRestriction are implemented and code lists for public responsibility types and public restriction types are compiled.

The classes FI_PropertyToPropertyRight, FI_CommonRight, FI_Party To-PropertyRight and FI_LatentRight are specifications of the class FI_Right, which is a subclass of the abstract class FI_Right. Therefore, since they inherit the attributes of FI_RRR, the only attribute these subclasses have is the type of the right, restriction or responsibility. The type of the attribute value comes from the code lists (see section 6.4 below).

## 6.4 Code lists for classes in administrative package

ISO 19152 gives examples of code lists associated with the administrative package. The code lists concern the types of rights, mortgages, availability status, administrative source, basic property unit, responsibility and restriction. The code list for LA_RightType includes the following types: agriActivity, commonOwnership, customaryType, fireWood, fishing, grazing, informalOccupation, lease, occupation, ownership, ownershipAssumed, superficies, tenancy, usufruct and waterrights.

Paasch et al. (2013, p. 14) discuss the question as to whether there should be individual code lists for each subclass; the question remains open. As the new classes are based on the LCDM which has been accepted as being suitable for western cadastral types (Hespanha et al. 2009; Paasch 2011), all property rights may be more or less classified by using the LCDM. The rights in the LCDM are mirrored in a way that each right may benefit or encumber the ownership right. If each of the new classes had individual code lists, there would be unnecessary duplication of the lists (since there would be similar lists for each "mirrored pair of rights").

The Finnish cadastre does not include most of the new "responsibility" classes. Although a common or a property-to-property right usually generates a responsibility for the right holder, it is not entered in the cadastre but regulated in the legislation and further for example in rules that the community of shareholders compile. It would be quite challenging to collect all of these rules, especially when not all the common right holders have set these kinds of rules (yet). For the clarification of 1) the LADM with its legal extension and 2) the Finnish cadastre, my proposition is that the code lists are made only for the extension of FI_PrivateRight, which may then be implemented on a discretionary basis for classes FI_PrivateRestriction and FI_PrivateResponsibility. In other words, the new code lists are compiled for the Finnish cadastre for classes FI_PropertyToPropertyRight, FI_CommonRight, FI_PartyToProperty-Right and FI_LatentRight (Figure 6.2). Code lists for extended public legal profiles (FI_PublicRestriction and FI_PublicResponsibility) are also compiled (Figure 6.3).

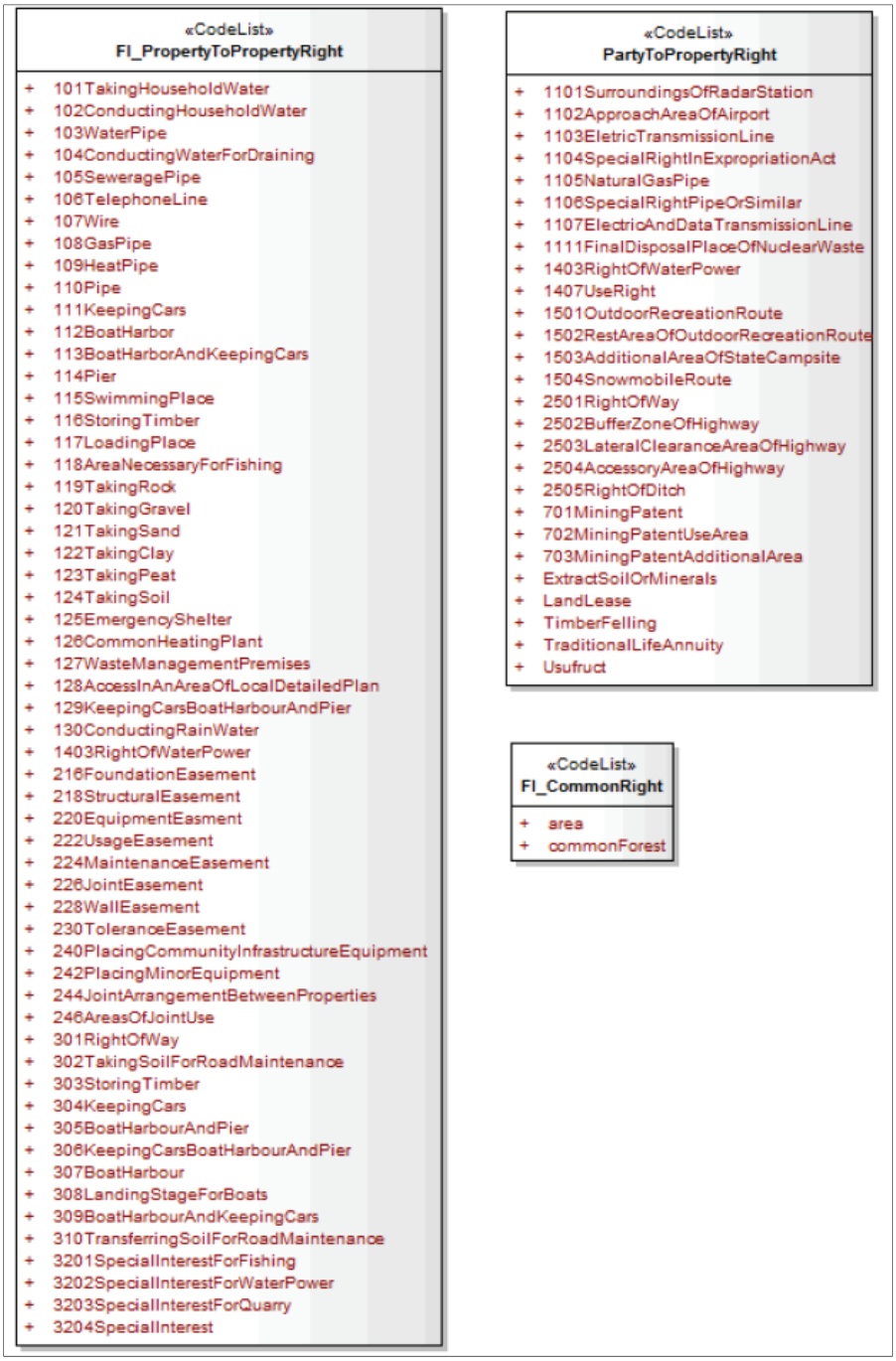


**Figure 6.2.** Code lists for FI_PropertyToPropertyRightType, FI_PartyToPropertyRightType and FI_CommonRightType.

The codes in the lists also include the code number which is currently used in the cadastre. This helps to identify different property-to-property rights, for example. There are several rights in the code lists which are the same type (e.g. “Storing timber”), but have different code numbers (“116StoringTimber” and “303StoringTimber”). This difference is explained by the fact that although the rights are established for the same purpose, their establishment and registration may differ since they are regulated by different laws (in this case, “116StoringTimber” by the RPFA 554/1995 and “303StoringTimber” by the APR 358/1962).

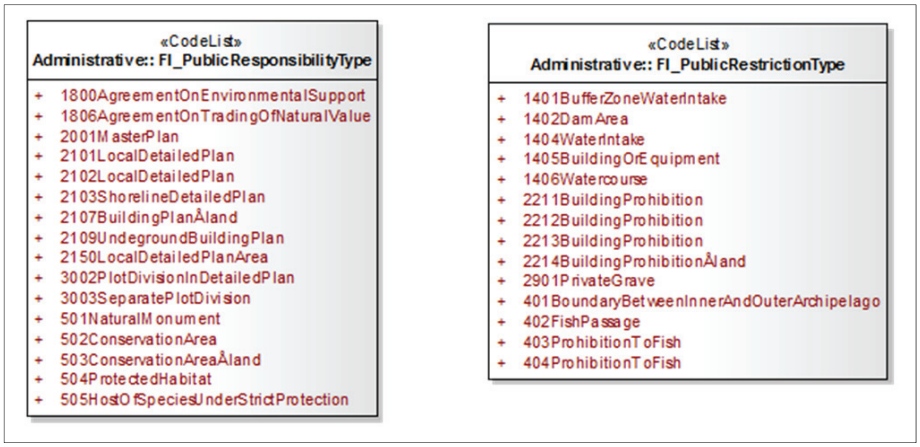


**Figure 6.3.** Code lists for FI_PublicResponsibilityType and FI_PublicRestrictionType.

The code list for public responsibilities and restrictions also include the code numbers they are registered under in the cadastre and this is also used to identify the restrictions or responsibilities. For example, there are four different building prohibitions in the code list which are imposed in different situations. “2211BuildingProhibition” is imposed for compiling or changing a local detailed plan, whereas “2212BuildingProhibition” is imposed to extend the previous building prohibition.

The code list for FI_BAUnit type is also wider than the code list proposed for LA_BAUnit, since there are nine possible types of basic administrative units to be registered (see section 3.2 “Different types of real property units and other property units”). The Annex J of the ISO 19152 proposes three possible codes for basic administrative unit types, which are basicPropertyUnit, leasedUnit and rightOfUseUnit. The proposal for Finnish code lists for basic administrative unit types is presented in Figure 6.4.

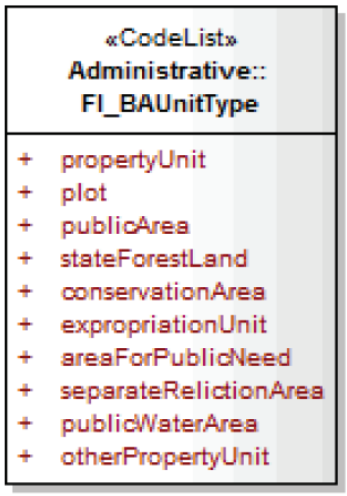


**Figure 6.4** Code list for FI_BAUnit type.

Real property, to which it is possible to register a title, may be the object of a mortgage (Jokela et al. 2010, p. 414). Since not all the real property types in Finland fulfil this prerequisite of a mortgage, this should be taken into account when creating the associations between classes. A title may not be granted for a public area, state-owned forest land, conservation area, unit under expropriation and area separated for public needs, separate reliction area, public water area and other property unit. (Jokela et al. 2010, p. 371)

# 7 Results

This chapter presents the results of this study. The research questions were framed in section 1.6 “Setting the research problem”. In this chapter each question will be separately discussed and an answer to the research question will be given.

1) What is the concept of real property in the Finnish cadastral system and should it be deconstructed?

2) How have the real property rights and restrictions been handled in cadastral surveys and entered into registers at different times throughout history?

3) What are the international models and standards for the cadastral system and how do they fit into the Finnish concept?

4) How should the registration of real property rights and restrictions be modelled and systematised so that the renewal will fulfil the international models and standards for the cadastral system?

To answer the first question “What is the concept of real property in the Finnish cadastral system and should it be deconstructed?” I will present a suggestion for deconstructing the Finnish concept of real property by reducing the number of real property rights that are seen as part of the real property according to legislation. I will respond to the second question “How have the real property rights and restrictions been handled in cadastral surveys and entered into registers at different times throughout history?” by giving a presentation of the content of the information included in the Finnish cadastral system. The third question – “What are the international models and standards for the cadastral system and how do they fit into the Finnish concept?” – will be answered by presenting the international trends of standardising cadastral information, concentrating on the ISO 19152 Land Administration Domain Model. Also a country profile for Finland in the context of the administrative package of the LADM will be given using the UML modelling language. The last question, “How should the registration of real property rights and restrictions be modelled and systematised so that the renewal will fulfil the international models and standards for the cadastral system?” will be answered by giving a clarification for convergences and

differences between the Finnish system and international models. After that, a suggestion for the renewal of Finnish system of registering property rights is put forward.

## 7.1 Answering the research questions

**What is the concept of real property in the Finnish cadastral system and should it be deconstructed?**

The legal definition of a real property in Finland may be found in section 2.1 of the RPFA (554/1995. According to it, a real property comprises not only the area belonging to it, but also some of the rights attached to it. The rights which are part of a real property may be classified by using the Legal Cadastral Domain Model (Paasch 2012a, p. 26) and they are property-to-property rights and commons.

The Land Administration Domain Model was approved according to ISO standards in 2012. This model gives a framework for the land administration system. The Legal Cadastral Domain Model is proven to be suitable for extending the Land Administration Domain Model as its legal extension (Paasch et al. 2013, p. 14). In this study, a country profile for Finland was compiled for an administrative package with the legal extension of the LADM.

The study showed that the legal concept of real property in Finland is problematic. As the commons and property-to-property rights are seen as part of the real property itself, not as rights affecting the real property, their modelling according to LADM is challenging. Therefore, there is a need to re-examine and deconstruct the concept of real property so that in the future the rights can be separated from the concept. There are several possibilities to reduce the number of the property rights, of which the simplest is to eliminate those rights that are outmoded (see section 7.3.2 “Model for registering special interests”). Reducing the number of other property rights needs further investigation but it might be possible to register only property-to-property rights, commons, person-to-property rights, latent rights, monetary liabilities, and public regulations and in descriptions specify the type of a certain right.

**How have the real property rights and restrictions been handled in cadastral surveys and entered into registers at different times throughout history?**

The study proved the fact that although the legislation sets a framework for registering the property rights, they are not necessary fully registered. The reason behind this is that the development of the Finnish cadastre has been rather long and included several different registers which have been manually compiled and maintained. There has always been pressure to accelerate the process of maintaining land-related registers. The development of the Finnish cadastre shows

that in order to accelerate the process, some of the rights have been left out of the cadastre. When later compiling a new register based on the previous one, the "missing" rights have no longer ended up in the new register.

**What are the international models and standards for the cadastral system and how do they fit into the Finnish concept?**

This study focused on the ISO 19152 standard Land Administration Domain Model (LADM) and its possible future legal extension, the Legal Cadastral Domain Model (LCDM). The study showed that the models are quite suitable for describing the Finnish cadastral system, but there are also some flaws in implementing the models in Finland.

When compiling the FI country profile, two main issues came up concerning the implementation. First, the Finnish legal concept of real property is problematic, since property-to-property rights and commons are seen as part of the real property. This creates a situation where a right should be placed in the LADM both in the basic administrative unit class and right, restriction and responsibility (or its subclasses) class.

Second, classifying the property rights according to the LCDM requires their classification into property-to-property rights, personal (also party, as implemented in the LADM) rights, commons and latent rights. The LCDM also includes the fifth type of right, monetary liability, but when integrating the LADM and the LCDM it should be noted that the LADM already includes the mortgage class and there is no need to change it (Paasch et al. 2013, p. 8). The idea behind the classification of property rights into the LCDM categories is that rights in each category have similar characteristics.

In the Finnish context, there are different property-to-property rights (easements, rights of way, rights similar to easements, special interests) which have slightly different characteristics (see section 5.1 "Property-to-property rights"). The major differences occur when comparing the special interests with other property-to-property rights. Since the group of special interests is already outdated and new special interests may not be established, it should be considered whether it is possible to remove the concept of special interest from the Finnish cadastral system. An additional complication in tackling this problem is that a special interest may be private or joint. This creates a situation where private special interests are closer to the characteristics of easements and joint special interests are closer to the characteristics of commons.

**How should the registration of real property rights and restrictions be modelled and systematised so that the renewal will fulfil the international models and standards for the cadastral system?**

As stated in the previous paragraph, the special interests and their registration create a problem within the registration of real property rights and classifying them according to LCDM. The answer to this question required a clear definition of the interconnections between special interests against easements and

commons. The next sections present these interconnections and also a model for removing the concept of special interest and registering them as easements.

## 7.2 Interconnections between easements, commons and special interests

As a concept and content, special interest seems to be interposed somewhere between easement and share of joint property (see Figure 7.1). The differences between the characteristics of joint and private special interests can be also detected. On one hand the characteristics of the private special interests approach to easements, and on the other hand the characteristics of the joint special interests approach to shares of joint property.

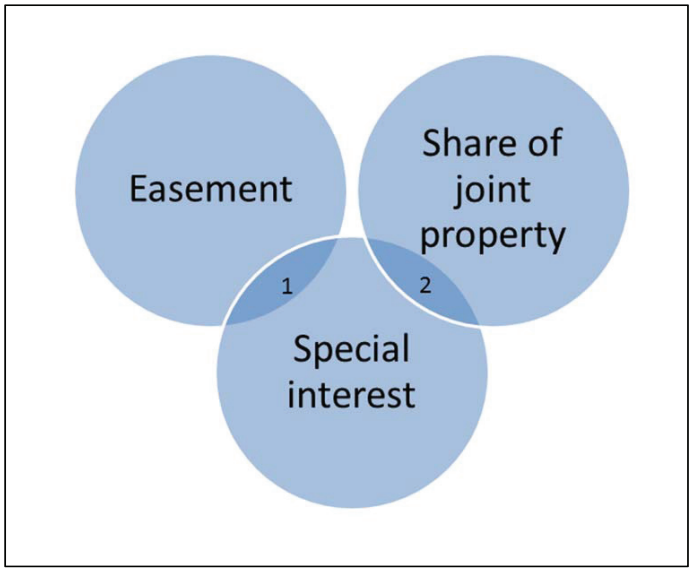


**Figure 7.1** The interconnections between easements, special interests and shares of joint properties. Area 1 describes the similarities between special interests and easements, Area 2 the similarities between shares of joint property units and special interests.

As a concept, a special interest is close to an easement: a special interest gives a right to its holder to use a real property owned by someone else for some specific purpose (Area 1 in Figure 7.1). However, special interests diverge from easement in several ways. Unlike easements, a share of special interest may have been decided (in case of joint special interest). Also, a special interest may have been entered into the real property register as independent register units, unlike easements (Area 2 in Figure 7.1).

Rummukainen (2010, p. 79) sees the major differences between easements and special interests in the obligation to use a certain form or the lack of it. As mentioned in section 5.1.1 “Defining easement”, easements in Finland may be established only for the purposes listed in the legislation. This kind of obligation is lacking when it comes to special interests. Special interests may also be seen

as being established more for independent beneficial purposes, whereas easements shall serve the benefitted real property and its appropriate use more precisely.

If we study the concept of special interest with the help of characteristics concerning easements defined by Calonius and presented by Wirilander (1979, p. 193), we discover that the concepts of easement and special interest are very close to each other. The special interest fulfils all the characteristics defined for easements: it is related to real property; it gives the interest holder the right but obligates the encumbrance of the real property; it concerns property owned by someone else; or it may have been established because it has some benefit for the real property.

How can we then separate these two concepts from each other, and is it even necessary to do so? When searching for the answer to this question it is reasonable to study the benefit that the special interest or easement affords its holder (real property). An easement may be established if it benefits the right holder in some way. This might mean a right of way or a right to store cars in an area of another real property. These benefits might not, however, have a direct economic influence on the dominant real property. One of the characteristics for special interest is that it has been established for some economic purpose. Therefore, it benefits its holder economically in particular.

Shares of joint properties differ from easements and special interests because their expiration is not regulated by law, for example. However, there are similarities between shares of joint properties and shares of joint special interests. Even their management is regulated by the same law.

## 7.3 Simplification of property rights

When it comes to legibility, it is essential that unclear and old property rights need to be clarified and discontinued, if needed. As shown in chapter 4, the Finnish cadastral system retains several different types of property rights that may be classified into different groups, such as by their legal behaviour. Currently, the established practice in Finland is to categorise the property rights into four groups; easements and other use rights similar to them, person-to-property rights, latent rights, and lien. (see e.g. Vitikainen 2009, p. 8). This categorisation needs to be re-evaluated based on Paasch's classification of property rights (see Paasch 2012a, p. 26) and an additional group of rights should be added: commons.

In order to be able to compare and exchange knowledge between countries, the Finnish classification should be adapted to the international one. This means that the "traditional" categorised groups shall be re-arranged. Since the concept of special interest is somewhat unclear, and in some areas also outmoded, there might be a need to remove the entire concept of special interest from the Finnish cadastral system and start to discuss the whole property-to-property rights class as an unimous entity, which has only one definition and all the rights included in this category are similar to each other by their nature.

### 7.3.1 The problem with special interests

In order to remove the concept of special interest, there is a need to study the content of this concept. At this point it is relevant to recognise, whether a special interest is related more to easements or commons when it comes to its characteristics. The special interests shall be integrated into the groups of property-to-property rights or commons, or even into both groups. At the same time, those existing special interests that are considered to be outmoded may be completely removed from the cadastre. These changes need to be done with very careful consideration in order not to violate the constitutional protection of property.

A special interest does not give its holder the right to totally exclude the land owner from using the land (see SC 128/1981). In this case it is more reminiscent of an easement than a common. If a special interest is transformed into a common area, the new area will be a totally independent register unit. On the other hand, the shareholders of a joint special interest may use their right through certain shares. If transformed into an easement, the shares need to be revised. At this point a Finnish system of easements does not recognise a list or register of shareholders and the shares, but the premises are that all the right holders have an equal right to use the easement or the use right[33].

The location of special interests may cause problems when registering them. Some of the special interests are very easy to locate, for example in cases of dams or mills, as their location is quite unambiguous and so measurable and possible to enter into the cadastre. Many special interests concerning fishing in the northern municipalities (Inari, Enontekiö, Ivalo) were already located very precisely at the time they were established, which makes their registration easier. However, not all the special interests are located unambiguously in a precise place and it should be also considered whether a special interest might move[34].

[33] An exception to this is the determination of road units according to hte APR (358/1962). The units may be seen as the share of a private road.

[34] Besides northern rivers and lakes, special interests for fishing may be found in sea areas. The questions of handling these special interests have come up in cadastral surveys for demarcation of the open sea, among other places). This demarcation is done to determine the boundary between private (jointly owned by real properties involved in land division proceedings) and public water areas. A boundary in the open sea is located (according tothe Act on Boundaries in Water (ABW 31/1902) sections 2 and 3) 500 metres away from the point where the depth of the sea is two metres (when the water is at a normal level). When taking into consideration the rising of the land, especially on the coast of the Gulf of Bothnia, it can be noted that the boundary is moving in line with the current situation.

Section 10 of the ABW (31/1902) regulates the water law village's shoal rights. It states that neither the rise nor fall of the water level or land has an influence of a real property's boundary in relation to a water area belonging to another real property or water law village. This section was repealed by the Act on Land Division (82/1916). In 1994 legislative drafts proposed to add the same section to the ABW (31/1902). The drafts stated that originally the purpose was not to repeal the section, but to create a section that regulates the reliction areas. (GP 120/1994, section 1.13) When determining the boundary between water law village and public water area, the Act on boundary in water (31/1902) section 10 is only applicable for determining the boundary on the side of land. The boundary of the open sea shall be determined to its place based on the dimension of shoal. (see CS 2002-855659 ; SC 1932-I-34 )

According to the RPFA (554/1995) section 105, a boundary of a water law village locating in water shall be determined by applying the regulations of the ABW (31/1902). One may think that this also concerns the boundary of the open sea. According to section 104.1 of the RPFA (554/1995), whenever a boundary has been determined, it shall be determined again in the same place as before. However, the SC has stated in its judgment (34/1932) that "a boundary of the open sea is in effect until it might be re-determined in a legal cadastral survey". Taking this moving boundary into consideration, it can be stated that special interests located in the open sea might also move in relation to the boundary. This particularly concerns situations

### 7.3.2 Model for registering special interests

Figure 7.2 presents the model for registering special interests. The basis for this model is that the concept of special interest shall be removed from the Finnish cadastral system, because it is outdated and also, when looking at international models, unnecessary. This will promote the simplification of cadastre and property rights. In the future, special interests will be registered as use right units which causes some changes in the concept of easement[35]. The model is based on three stag in related to right, subject and object, and registration of special interests.

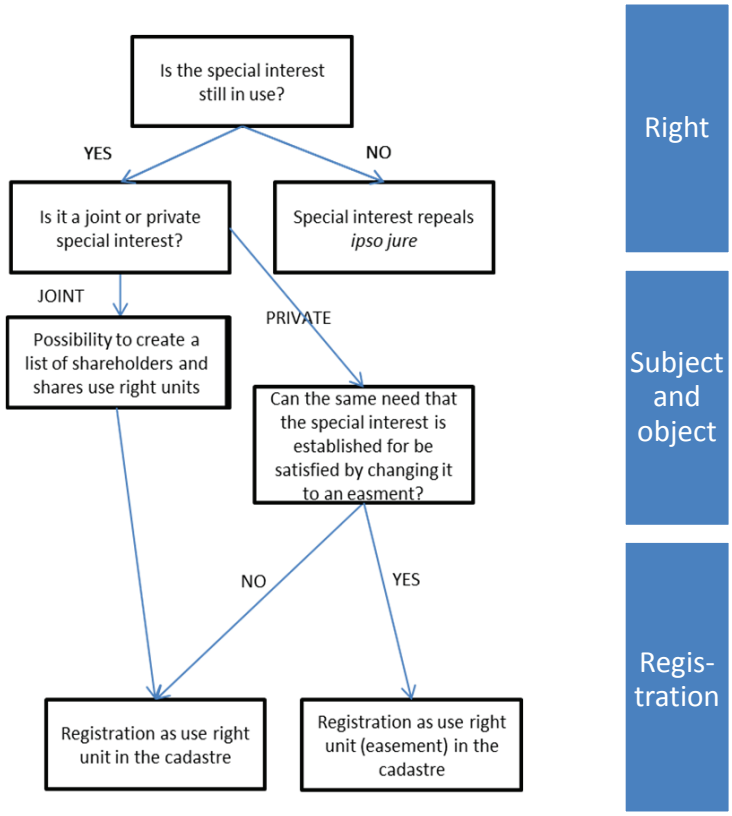


**Figure 7.2** A decision-making process model when registering special interest.

where the special interest has been established for fishing certain type of fishes that tend to swim at a certain depth, for example. (see also Haataja, 1951 p. 129-130; Hyvönen, 1982, p. 655)

To include a fishing right among special interests, it swould usually be based on time immemorial usage (or be given to a homestead in its decision of establishment – but normally this only concerns homesteads in northern municipalities). In addition to that, it shall be located in an area of another village and it shall have certain boundaries. A special interest for fishing often concerns only some specific types of fishes in some certain area. If the location of special interest was determined in relation to water area (the open sea), it would move whenever the boundary of the open sea was re-determined.

[35] Although the name of the unit is "use right unit" its legal behaviour is similar to easement and so has an effect on the concept of "easement". (See GP 227/1994)

The suggested model (Figure 7.2) for clarifying property-to-property rights through removing the special interests from the cadastre includes three steps following each others. The first issue when considering a single right is to recognise the type of the right, is it actually a special interest or maybe some other property-to-property right (or even, a person-to-property right)? After that, the need for the existence of the special interest is to be examined. The second step is to clarify the subject(s) and the object of the right. The final step is to register the former special interst as an easement or a use right unit, depending on the decision-making process. The following sections introduce each step more precise.

#### *7.3.3.1 Right*

The first step in registrating special interests is to recognise what different types of special interests can be found in the Finnish cadastral system. The legislation does not give a comprehensive listing of the special interests. It may be a right for fishing, mill or rapid, quarring or something similar to that. The statement "something similar to that" enables practically anything to be a special interest. Rummukainen and Salila (2011) also listed some hunting rights among special interests. So, when determining whether some right is a special interest or not, it should be done according to its characteristics, not only according to its purpose of use.

To clarify the cadastre, and register all the special interests in use, those special interests that are not in use or cannot be used anymore, shall be removed. This concerns those special interests that are outdated when it comes to their purpose of use or for some other reason no longer in use. This type of procedure is not unprecedented when handling property rights. An example of this is the Act on Repealing of Certain Easements (449/2000). This Act came into force in 2002 and along with it, easements established for herding cattle and soaking flax as well as rights similar to easements established for supporting state log driving expired. The period for expiration was two years for private rights from the coming into force of the Act (Act on Repealing of Certain Easements 449/2000 section 3).

Something similar to the Act presented above would make it possible to remove those special interests that are no longer necessary. At least one whole group to be removed would be special interests for quarries. As stated in section 5.1.4 "Special interests", there are nearly 5 000 mills in Finland that may be seen as special interests. However, it is impossible to estimate their significance nowadays, especially when some of the mills have been registered as common areas. The change in legislation would either enable the removal of a special interest for a mill or alternatively the registering of interest as an easement or use right unit. This would clarify the cadastre since the unnecessary entries would be removed. The removal would be *ipso jure*, but the owner of the benefiting real property would have the chance to apply for a cadastral survey for registering the special interest as an easement. The procedure costs would be

covered by the state, as was done with the Act on Repealing of Certain Easements (449/2000).

The owner of the benefiting real property would have a possibility to apply for compensation for the possible damages that the removal causes. Each case would be separately investigated. It can be assumed that this procedure would not cause significant extra work for the authorities, since the special interests to be removed have become unnecessary and the land owners will not apply for compensation.

#### *7.3.3.2 Subject and object*

In the second step of the process of registering special interests and clarifying property-to-property rights, their number will have already decreased. At this stage the main group of special interests is different types of special fishing rights. The problem concerns the registration of these interests. In the northern municipalities, a massive registration process has been conducted (but still not all the special interests have been registered), but in the other parts of Finland there are no registered special interests. However, special interests exist in the form of mills, for example (see Vitikainen 2013, p. 15).

At this stage the main question is to recognise whether the special interest is joint or private. If the special interest is private, which means that only one property is entitled to use it, the next step is to examine whether the same purpose or need that the special interest was originally established for may be satisfied by establishing an easement instead. What is notable at this stage is that the *numerus clausus* principle still exists in Finnish legislation, so the need must be satisfied by establishing easements listed in section 5.1.1. “Defining easement”.

If the special interest is joint, which means that more than one real property is entitled to use it, the shares of use shall be determined. After the shares are determined and verified, the special interest may be registered in the cadastre as a use right unit. Although it might be possible to satisfy the need the special interest was originally established for by establishing an easement, it is not possible for joint special interest.

Section 158.2 of the the RPFA (554/1995) states that if the use of an easement requires some construction work or repair of the easement area, the costs of these actions shall be divided between the benefiting properties according to the benefit they gain from the easement. The same applies to the maintenance costs of an easement. (Hyvönen 2001, p. 566) When determining the shares of joint special interest, this same principle of benefit could be used. In this case the division would concern the shares, not costs. However, the Roman-based law does not recognise the division of use of an easement (see Buckland 1921, p. 262) and this is why the joint special interests shall be registered as use right units in the cadastre, even though the need the special interest was originally established for would otherwise be satisfied by establishing an easement.

#### *7.3.3.3 Registration*

The legislation shall be modified in a manner that the special interests are repealed immediately when they have been registered as use right units (easements or other use rights).

The suggested model for registering special interests as easements would most probably have more advantages than only their registration. If it were possible to determine shareholders and shares for easements, it would clarify different situations and reduce disputes. This kind of handling would be particularly useful in situations where, for example, an easement for a boatyard has been established to benefit a few real property units. After that, the real property unit has been subdivided into smaller real property units, and the new real properties may have been given the right to use the same easement. As these real properties may have been subdivided further into smaller real properties and again perhaps were given the right to use the same easement, the situation starts to become complicated. It is possible that the use of the easement is unclear and the area of the boatyard is too small. If it would be possible to determine the shares of easements, the use and management of the easements would be easier to handle.

# 8 Summary of the study

This chapter presents the summary of the study and conclusions resulting from the study. After this, possibilities for future research are discussed.

## 8.1 Summary of the study

This research started in 2010 and was initially set up to clarify the broad spectrum of real property rights in Finland. It was particularly designed to clarify and find a systematised way to register a group of property rights, or "special interests", into the cadastre. This old type of right had remained in the legislation, although their establishment has not been possible for decades. To create a systematised way of registering the special interests, the first step was to define the concept of special interest. To tackle this problem, a wide historical review was done in order to sort out what different types of rights could even be seen as a "special interest". The study showed that the concept of special interest is not unambiguous and even more, the interconnections between special interests, easements and other use rights and commons are not clear in all cases.

As the research proceeded, it was obvious that deeper research into the Finnish cadastre was necessary. In the recent decades there have been several international attempts to standardise the land administration systems in order to gain openness and exchange of information. A breakthrough in this area was made in December 2012 as the Land Administration Domain Model was approved as international ISO standard number 19152. A legal extension for the LADM was proposed in the shape of the Legal Cadastral Domain Model. Globalization has created a need for information exchange. To exchange information and knowledge, there needs to be a standardised solution to ensure that the parties are speaking the same language.

This is the reason for building a FI country profile in this research. Since the LCDM is seen as the major focus, the country profile is built based on the assumption that the legal extension will affect the administrative part of the LADM the most, meaning an administrative package including rights, responsibilities and restrictions. The study proved that the LADM, with its legal extension, is applicable in the Finnish context, but to apply all parts of it, there is a need to reanalyse the Finnish concept of a real property and some of the property rights.

At the moment, the legal definition of a real property in Finland comprises not only the physical area, but some of the property rights that may be found in the Finnish cadastral system, and commons. The property rights that are part of the real property are, according to definition, easements and rights which are similar to easements, but are not defined as easements because of the *numerus clausus* principle. These similar rights are mainly rights to private routes. In addition, a third group of rights is included in the definition, special interests. These are also property-to-property rights but have slightly different characteristics than easements.

A real property in Finland may consist of a physical area and/or legal dimensions. An easement or similar right to easement may, however, not create a real property *per se* (GP 227/1994), although share of common area or a special interest may do so. The question is how some of the property-to-property rights can be independent register units, whilst others can not.

If the FI country profile is applied as set out in this study, there is a need to reduce the amount of right types within the property-to-property rights class. The rights in each class should have similar characteristics; otherwise the advantage created by classifying national property rights into universal right classes will be lost.

## 8.2 Future research

We cannot assume that the current system is the best, but rather an answer to the current needs of registering land rights. In the literature we can identify the concept of a "continuum of rights", which means that the current cadastral system should answer the current needs of a country's tenure system (see UN-HABITAT 2008). The LADM is also applicable in this continuum of rights as one tool (Teo & Lemmen 2013; Lemmen 2010).

It is obvious that the research in the context of the Land Administration Domain Model will continue in the future, since even though there have been several tests of the LADM in the context of different countries, there are still several countries that lack the profile. The integration of the LADM and the LCDM as its legal extension will be within the scope of researchers in the future (see Paasch et al. 2013).

In Finland, a major future research topic is how the whole LADM can be applied in the Finnish context with all its packages. In addition, future research concerning other possibilities to apply the legal extension in Finland is required. The code lists need to be examined, and at this moment the proposed code lists are extremely detailed and include dozens of codes. A simpler way of registering the rights with fewer codes would be reasonable in terms of the usability of the cadastre. A study concerning the public advantages and restrictions would be interesting.

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## APPENDIX 1

The period, register units, and information concerning the register units in the land book, land book register, land register, city book and urban cadastre (based on Lappalainen 2002, p. 124-127).

| | **Land Book** | **Land Book Register** | **Land Register** | **City Book** | **Urban Cadastre** |
|---|---|---|---|---|---|
| **Period** | 1524-1916 | 1812-1895 | 1895-1985 | 1347-approx. 1800 | 1931-1985 |
| **Register units** | Homesteads, crofts under taxation, detached parcels and homesteads, independent mills, homesteads donated to cities as well as Crown meadows and islands | Whole homesteads registered in the land book and also their subdivisions | All homesteads under taxation | Plots | Plots Public areas |
| **Information concerning register units** | Name of the village where the unit is located; the name of the unit; its residents; its nature from the point of view of taxes and possible Crown use; the size of the unit; calculated taxes; possible mills; possible yield of rapids; detached islands; fields and meadows separately; fisheries; seines and other units that were considered profitable for the unit and were under taxation | In addition to information in the land book: subdivision; areas divided according to land use; dossier numbers of minutes and maps | The characteristics and nature of the units; their assessment units; area classified according to land use into cultivated area, arable land, forest, waste land and water areas; shares given in subdivisions; easements that were established in subdivisions; shares of joint property units; and identification number corresponding to the archived documents | Land ownership and tenure; plot size and their location; and taxes of plots and other property | Identification; location; owners; taxes; transactions and prices; history; date of compiling a plan or plot division |

## APPENDIX 2

The old types of easements registered in the cadastre. The number indicating the total number of a certain kind of an easement includes all the register entries concerning an easement, which means that a same easement is shown in this table twice, as encumbering or benefiting a real property. The code in the left is the code number for an easement, middle is the type of the easement an in the right the number of the easement. (JAKO 2012)

| Code | Type | Number |
|---|---|---|
| 0 | No information | 233 995 |
| 1 | Car keeping | 1388 |
| 2 | Parking place | 452 |
| 3 | Car storage | 126 |
| 4 | Taking sand | 481 |
| 5 | Keeping a gas pipe | 76 |
| 6 | Taking water | 23 814 |
| 7 | Fishing | 1 249 |
| 8 | Herding cattle (expired 1.6.2002) | 0 |
| 9 | Taking rock | 13 |
| 11 | Keeping dock | 1 659 |
| 12 | Loading place | 2 022 |
| 13 | Playground | 0 |
| 14 | Keeping a heating pipe | 72 |
| 15 | Keeping a heating plant | 22 |
| 16 | Place for soaking flax (expired 1.6.2002) | 0 |
| 18 | Keeping a telephone line | 833 |
| 19 | Storaging timber | 1 412 |
| 21 | Taking clay | 175 |
| 22 | Taking gravel | 2 352 |
| 23 | Taking mud from bog | 86 |
| 24 | Keeping a wire | 1 588 |
| 26 | Taking matter for a road | 201 |

| Code | Type | Number |
|---|---|---|
| 27 | Taking peat | 30 |
| 28 | Swimming place | 422 |
| 29 | Free zone | 99 |
| 30 | Contucting water | 11 860 |
| 31 | Damming water | 1 339 |
| 32 | Boat harbour | 17 600 |
| 33 | Keeping a water pipe | 4292 |
| 34 | Keeping a sewerage pipe | 2042 |
| 35 | Keeping a bomb shelter | 40 |
| 36 | Keeping a transformer | 13 |
| 39 | Expired joint main ditch | 37 |
| 40 | Land necessary for fishing | 160 |
| 41 | Waste collection point | 3 |
| 42 | Placing and using a gas pipe | 3 |
| 43 | Using land necessary for fishing | 32 |
| 44 | Using land necessary for pier | 100 |
| 45 | Placing and using a heating pipe | 3 |
| 46 | Placing and using a heating plant | 2 |
| 47 | Placing and using a telephone line | 28 |
| 48 | Placing and using a wire | 103 |
| 49 | Conducting household water | 211 |
| 50 | Taking household water | 375 |
| 71 | Contucting water for drainage | 59 |
| 72 | Placing and using a water pipe | 203 |
| 73 | Placing and using a sewerage pipe | 134 |
| 75 | Placing and using bomb shelter | 4 |
| 76 | Land necessary for passage | 57 |
| 77 | Outdoor recreation route and its additional area | 2 |
| 78 | Joint-use area for internal use of detailed shore plan | 8 |
| | **TOTAL** | **311 277** |

**APPENDIX 3**

A detailed listing of independent mills and mills for household use by counties, juristictional districts and parishes collected from land book from 1875 (LB 1875).

| County, jurisdictional district | Parish | Independent mill | Household use | TOTAL |
|---|---|---|---|---|
| **Kuopio** | | 116 | 414 | 530 |
| Iisalmi district* | | | | 0 |
| Ilomantsi district | Eno | 4 | 16 | 20 |
| | Ilomantsi | 13 | 20 | 33 |
| | Kiihtelysvaara | 10 | 1 | 11 |
| | Pielisjärvi | 1 | | 1 |
| | Tohmajärvi | 10 | 2 | 12 |
| Kuopio district | Kuopio | 14 | 18 | 32 |
| | Tuusniemi | 1 | 2 | 3 |
| | Pielavesi | 5 | 46 | 51 |
| Liperi district | Kaavi | 10 | 45 | 55 |
| | Kontiolahti | 5 | 24 | 29 |
| | Liperi | 5 | 23 | 28 |
| | Kitee | | 10 | 10 |
| | Kesälahti | | 5 | 5 |
| Pielisjärvi district | Pielisjärvi | 6 | 50 | 56 |
| | Juuka | 5 | 36 | 41 |
| | Nurmes | 3 | 49 | 52 |
| Rautalampi district | Leppävirta | 17 | 15 | 32 |
| | Suonenjoki | 1 | 22 | 23 |
| | Hankasalmi | 6 | 12 | 18 |
| | Rautalampi | | 18 | 18 |

* A list is lacking from digital archives

| County, jurisdictional district | Parish | Indepen-dentent mill | Household use | TOTAL |
|---|---|---|---|---|
| **Häme** | | 156 | 598 | 754 |
| Hauho district | Hauho | 6 | 12 | 18 |
| | Hattula | 3 | 6 | 9 |
| | Hausjärvi | 6 | 9 | 15 |
| | Janakkala | 4 | 4 | 8 |
| | Vanaja | 6 | 14 | 20 |
| | Loppi | 4 | 14 | 18 |
| Hollola district | Asikkala | 13 | 11 | 24 |
| | Hollola | 8 | 24 | 32 |
| | Koski | 3 | 6 | 9 |
| | Kärkölä | 3 | 5 | 8 |
| | Lammi | 3 | 18 | 21 |
| | Nastola | 6 | 5 | 11 |
| | Padasjoki | 4 | 6 | 10 |
| Jämsä district | Jämsä | 8 | 77 | 85 |
| | Korpilahti | 11 | 60 | 71 |
| | Kuhmoinen | 4 | 14 | 18 |
| | Luopioinen | 2 | 6 | 8 |
| | Kuhmalahti and Sa-halahti | 2 | 9 | 11 |
| | Eräjärvi chapel | 1 | 1 | 2 |
| | Längelmäki | 2 | 15 | 17 |
| | Kuorevesi chapel | | 12 | 12 |
| | Ruovesi | | 2 | 2 |
| Pirkkala district | Kangasala | 5 | 5 | 10 |
| | Lempäälä | 2 | 7 | 9 |
| | Messukylä | 3 | 7 | 10 |
| | Pälkäne | 4 | 4 | 8 |
| | Pirkkala | | 18 | 18 |
| | Sahalahti | | 6 | 6 |
| | Vesilahti | | 17 | 17 |
| Ruovesi district | Orivesi | 3 | 21 | 24 |
| | Ruovesi | 6 | 114 | 120 |
| | Teisko | 1 | | 1 |
| Tammela district | Somero | 4 | 14 | 18 |
| | Tammela | 4 | 21 | 25 |
| | Urjala | 3 | 13 | 16 |
| | Akaa | 2 | 4 | 6 |
| | Sääksmäki | 16 | | 16 |
| | Kalvola | 4 | 17 | 21 |

| County, jurisdictional district | Parish | Independent mill | Household use | TOTAL |
|---|---|---|---|---|
| **Mikkeli** | | 202 | 170 | 372 |
| Heinola district | Hartola | 17 | 8 | 25 |
| | Joutsa | 6 | 13 | 19 |
| | Leivonmäki | 2 | 3 | 5 |
| | Luhanka | 3 | 6 | 9 |
| | Mäntyharju | 21 | 13 | 34 |
| | Sysmä | 5 | 18 | 23 |
| | Heinola | | 4 | 4 |
| Juva district** | Juva | 18 | | 18 |
| | Pitkämäki | 10 | | 10 |
| | Haukivuori chapel | 8 | | 8 |
| | Puumala | 11 | | 11 |
| | Joroinen | 5 | | 5 |
| Mikkeli district | Hirvensalmi | 6 | 8 | 14 |
| | Kangasniemi | 12 | 43 | 55 |
| | Ristiina | 28 | | 28 |
| | Mikkeli | | 1 | 1 |
| Rantasalmi district | Rantasalmi | 8 | 7 | 15 |
| | Kangaslampi chapel | 1 | 4 | 5 |
| | Heinävesi | 8 | 21 | 29 |
| | Kerimäki | 12 | 8 | 20 |
| | Savonranta chapel | 2 | 1 | 3 |
| | Sääminki | 9 | 7 | 16 |
| | Sulkava | 10 | 5 | 15 |

** Partly defective list in digital archives

| County, jurisdictional district | Parish | Independent mill | Household use | TOTAL |
|---|---|---|---|---|
| **Oulu** | | 21 | 869 | 890 |
| Haapajärvi district | Haapajärvi | 1 | 26 | 27 |
| | Pyhäjärvi | 1 | 7 | 8 |
| | Haapavesi | | 13 | 13 |
| | Kestilä | | 8 | 8 |
| | Kärsämäki | | 13 | 13 |
| | Nivala | | 22 | 22 |
| | Piippola | | 11 | 11 |
| | Reisjärvi | | 2 | 2 |
| Kajaani district* | | | | 0 |
| Kemi district | Kemi | 2 | 12 | 14 |
| | Rovaniemi | 7 | 66 | 73 |
| | Simo | | 30 | 30 |
| | Kemijärvi | | 28 | 28 |
| | Kuolajärvi | | 41 | 41 |
| | Alitornio | | 31 | 31 |
| | Karunki | | 26 | 26 |
| | Ylitornio | | 96 | 96 |
| Oulu district | Haukipudas | 1 | 1 | 2 |
| | Ii | 2 | 40 | 42 |
| | Kiiminki | 1 | 6 | 7 |
| | Oulu | 1 | | 1 |
| | Kuusamo | | 80 | 80 |
| | Liminka | | 1 | 1 |
| | Muhos | | 22 | 22 |
| | Pudasjärvi | | 42 | 42 |
| Saloinen district | Kalajoki | 2 | 72 | 74 |
| | Pyhäjoki | 2 | 26 | 28 |
| | Siikajoki | 1 | 11 | 12 |
| | Sievi | | 23 | 23 |
| | Ylivieska | | 34 | 34 |
| | Oulainen | | 26 | 26 |
| | Saloinen | | 39 | 39 |
| | Paavola | | 11 | 11 |
| | Frantsila | | 3 | 3 |

* A list is lacking from digital archives

| County, jurisdictional district | Parish | Independent mill | Household use | TOTAL |
|---|---|---|---|---|
| **Turku and Pori** | | 72 | 1 173 | 1 245 |
| Åland district | Saltvik | | 3 | 3 |
| | Hammarland | | 1 | 1 |
| Ala-Satakunta district | Ulvila | 5 | 14 | 19 |
| | Nakkila | 1 | 14 | 15 |
| | Noormarkku | 8 | 33 | 41 |
| | Sastamala | 3 | 31 | 34 |
| | Siikainen | 1 | 29 | 30 |
| | Eura | 1 | 18 | 19 |
| | Eurajoki | 3 | 31 | 34 |
| | Lapua | 1 | 5 | 6 |
| | Rauma | | 11 | 11 |
| | Hinnerjoki chapel | | 2 | 2 |
| Halikko district | Halikko | 3 | 98 | 101 |
| | Uskela | 2 | | 2 |
| | Pertteli | 3 | 12 | 15 |
| | Kiikala | | 13 | 13 |
| | Kisko | 3 | 24 | 27 |
| | Perniö | 4 | 35 | 39 |
| | Kemiö | 2 | 42 | 44 |
| Masku district | Nousiainen | 1 | 12 | 13 |
| | Maaria | 1 | 4 | 5 |
| | Raisio | 1 | 1 | 2 |
| | Pöytiäinen | 2 | 36 | 38 |
| | Lieto | 4 | 11 | 15 |
| | Marttila | 8 | 23 | 31 |
| | Masku | | 14 | 14 |
| Mynämäki district | Virmoo | 1 | 78 | 79 |
| | Nauvo | | 1 | 1 |
| Piikkiö district | Paimio | 1 | 44 | 45 |
| | Sauvo | 1 | 35 | 36 |
| | Piikkiö | | 7 | 7 |
| | Kaarina | | 3 | 3 |
| | Parainen | | 1 | 1 |
| Vehmaa district | Nykyrka | 2 | | 2 |
| | Vehmaa | | 18 | 18 |
| | Lethala | | 15 | 15 |
| | Pyhämaa | | 10 | 10 |
| Middle of Ylä-Satakunta (Tyrnävä) district | Karkku | 2 | 35 | 37 |
| | Mouhijärvi | 3 | 73 | 76 |
| | Tyrvää | 4 | 79 | 83 |
| Upper Ylä-Satakunta district | Ikaalinen | | 73 | 73 |
| | Parkano | | 41 | 41 |
| | Kankaanpää | | 70 | 70 |
| | Kyrö | 1 | 73 | 74 |

| County, jurisdictional district | Parish | Independent mill | Household use | TOTAL |
|---|---|---|---|---|
| **Uusimaa** | | 67 | 124 | 191 |
| Helsinki district | Porvoo | 16 | 52 | 68 |
| | Helsinki | 11 | 6 | 17 |
| | Mäntsälä | 6 | 14 | 20 |
| | Nurmi-järvi | 6 | 10 | 16 |
| | Sipoo | 5 | 16 | 21 |
| | Tuusula | 3 | 4 | 7 |
| Western Raasepori district | Tenala | 5 | 11 | 16 |
| | Pohja | 6 | 3 | 9 |
| | Karjaloh-ja | 3 | 5 | 8 |
| | Karjaa | 3 | 3 | 6 |
| | Inkoo | 3 | | 3 |

| County, jurisdictional district | Parish | Independent mill | Household use | TOTAL |
|---|---|---|---|---|
| **Viipuri*** ** | | 100 | 147 | 247 |
| Jääski district | Joutseno | 2 | 7 | 9 |
| | Ruokolahti | 21 | 79 | 100 |
| | Rautjärvi | 7 | | 7 |
| | Jääski | 6 | | 6 |
| | Kirvu | 14 | | 14 |
| Kurkijoki district* | | | | 0 |
| Kyme district | Pyhtää | 1 | 2 | 3 |
| | Kymi | 2 | 3 | 5 |
| | Vehkalahti | 7 | 34 | 41 |
| | Virolahti | 11 | | 11 |
| Lappee district | Lemi | 3 | 8 | 11 |
| | Savitaipale | 8 | 6 | 14 |
| | Luumäki | 4 | | 4 |
| | Lappee | 4 | | 4 |
| | Valkeala | 9 | 8 | 17 |
| | Taipalsaari | 1 | | 1 |

* A list is lacking from digital archives

*** Only areas inside present-day Finland are taken into account in Viipuri district

| County, jurisdictional district | Parish | Independent mill | Household use | TOTAL |
|---|---|---|---|---|
| **Vaasa** | | 46 | 1 122 | 1 168 |
| Ilmajoki (Illmolan) district* | | | | 0 |
| Korsholma district* | | | | 0 |
| Kuortane district | Keuruu | 2 | 45 | 47 |
| | Virrat | 1 | 40 | 41 |
| | Ähtäri | 1 | 23 | 24 |
| | Alavus | 3 | 68 | 71 |
| | Alajärvi | 2 | 69 | 71 |
| | Multia | | 28 | 28 |
| | Kuortane | | 73 | 73 |
| | Lappajärvi | | 22 | 22 |
| | Evijärvi | | 21 | 21 |
| | Kortesjärvi | | 24 | 24 |
| | Vimpeli | | 10 | 10 |
| Laukaa district | Viitasaari | 1 | 41 | 42 |
| | Pihtipudas | 1 | 16 | 17 |
| | Kivijärvi | 1 | 14 | 15 |
| | Saarijärvi | 4 | 67 | 71 |
| | Karstula | 1 | 32 | 33 |
| | Laukaa | 6 | 22 | 28 |
| | Jyväskylä | 5 | 13 | 18 |
| | Petäjävesi | 1 | 9 | 10 |
| | uurainen | | 14 | 14 |
| Pietarsaari district | Lohtaja | 5 | 60 | 65 |
| | Kannus | 6 | 57 | 63 |
| | Teerijärvi | 1 | 28 | 29 |
| | Pietarsaari | 4 | 31 | 35 |
| | Luoto | 1 | 42 | 43 |
| | Toholampi | | 30 | 30 |
| | Kälviä | | 55 | 55 |
| | Vanhakaarlepyy | | 43 | 43 |
| | Kaustinen | | 45 | 45 |
| | Veteli | | 50 | 50 |
| | Kruunupyy | | 30 | 30 |

* A list is lacking from digital archives

** Partly defective list in digital archives

Cadastral system and its domain models have been the focus of several international researches. A special attention has been paid especially to the standardization of models and concepts. This reveals that a need for creating a unified way to model the cadastral system, not only on a national, but also in an international level, has been recognized. This research focuses on the ISO Standard 19152 Land Administration Domain Model and its future legal extension, Legal Cadastral Domain Model.
The framework created by the Legal Cadastral Domain Model was utilized in order to classify the property rights, restrictions and responsibilities in the Finnish cadastral system. After that, a deeper analysis of the legal extension of the Land Administration Domain Model is done. The results are used to generate a partial country profile for Finland in the Land Administration Domain Model. The results may be applied in the development work of cadastral system and real property register.

Aalto-DD 163/2014

ISBN 978-952-60-5915-0 (printed)
ISBN 978-952-60-5916-7 (pdf)
ISSN-L 1799-4934
ISSN 1799-4934 (printed)
ISSN 1799-4942 (pdf)

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