

Nordic Journal of Surveying and Real Estate Research, Special Series, Vol. 3 (2008)

Received on 6 August 2007

Accepted 22 October 2007

Quality Management of Expropriation Processes in Finland

Tuomo Heinonen

National Land Survey of Finland
P.O. Box 84, FIN-00521 Helsinki, Finland
tuomo.heinonen@nls.fi

Abstract: *The expropriation procedure of Finland differs from almost all other countries in the world. An administrative body, the National Land Survey of Finland (NLS), is responsible for this task. The judicial system becomes involved only if the parties to the so called 'expropriation survey' appeal to the Land Court. The expropriation procedure is also quite popular among the Finnish public agencies utilising expropriation, even though other land acquisition means are available and even recommended by legislation.*

This paper presents the quality management system associated with the expropriation processes carried out by the NLS. By way of a background a short description of the legal procedure is described. After some institutional facts about the NLS and the volume of expropriations, the concepts of what constitutes good quality in respect to the expropriation processes are outlined. Most of these are related to customer needs. The 'tools' of NLS quality management are introduced comprehensively: clear process and quality responsibilities; and detailed process and product descriptions, process instructions, manuals and standards. These utilize the process databases and systems, audit reports and regular customer satisfaction studies. They are also dependent on continuing training of the personnel and the transparency of the process with both the NLS personnel and customers. Finally the methods of measuring and improving the expropriation process quality measures are described as part of the NLS's process development circle.

The conclusions of the paper suggest that the sound reputation of the NLS as the expropriation authority is, among other things, based on the strong process based quality management system.

Keywords: *Expropriation, compulsory acquisition, compensation, procedure, process, Finland*

Introduction

The concept of 'quality management' is usually associated with designing, developing and implementing a product or service. Connecting it also with administrative procedures has been a phenomenon of last the decade in Finland. The National Land Survey of Finland (NLS), a governmental organization responsible for expropriation surveys in addition to cadastral surveys and topographical mapping, has been one of the pioneers in developing its procedures using quality management techniques.

This paper describes how the quality of the expropriation (i.e. compulsory acquisition of property) procedures is managed and controlled by the NLS.

Expropriation as an administrative procedure in Finland

Because in many countries the courts are responsible for the expropriation procedures, a short description of the slightly untypical administrative expropriation system of Finland is necessary.¹

According to the Constitution of Finland (731/1999) "The property of everyone is protected. Provisions on the expropriation of property, for public needs and against full compensation are laid down by an Act." The Expropriation Act (603/1977) is such a general law regulating the compulsory purchase permit, procedure and the compensation principles. It is also applied when no special legislation for certain expropriation purposes exists.²

The Expropriation Act prescribes that an administrative body, a District Survey Office of NLS, is responsible for the execution of expropriation proceedings within its district. The Act states also that an expropriation committee headed by a cadastral surveyor from a District Survey Office with two trustees elected by the municipality is responsible for the expropriation survey i.e. all the decisions being related to the expropriation case. The expropriation committee acts independently as a 'lower court'. According to the Expropriation Act possible appeals against the decisions made at the expropriation survey can be made to the Land Court. The Real Estate Formation Act (554/1995) contains more detailed rules on the Land Court procedures and also on appeals to the Supreme Court.

¹ More detailed presentation on the administrative expropriation procedure based on Finnish legislation and experiences has been given by Viitanen (2004) [<http://www.fig.net/jakarta>].

² Land Use and Planning Act (132/1999), Highways Act (503/2005), Real Estate Formation Act (554/1995), Water Act (264/1961) and Expropriation Act for Defence Purposes (1301/1996) are examples of special legislation. However, the main principles of the expropriation procedures in these laws are based on the regulations of the Expropriation Act (693/1977).

A simplified process description of an expropriation survey is presented as a workflow diagram in Figure 1.

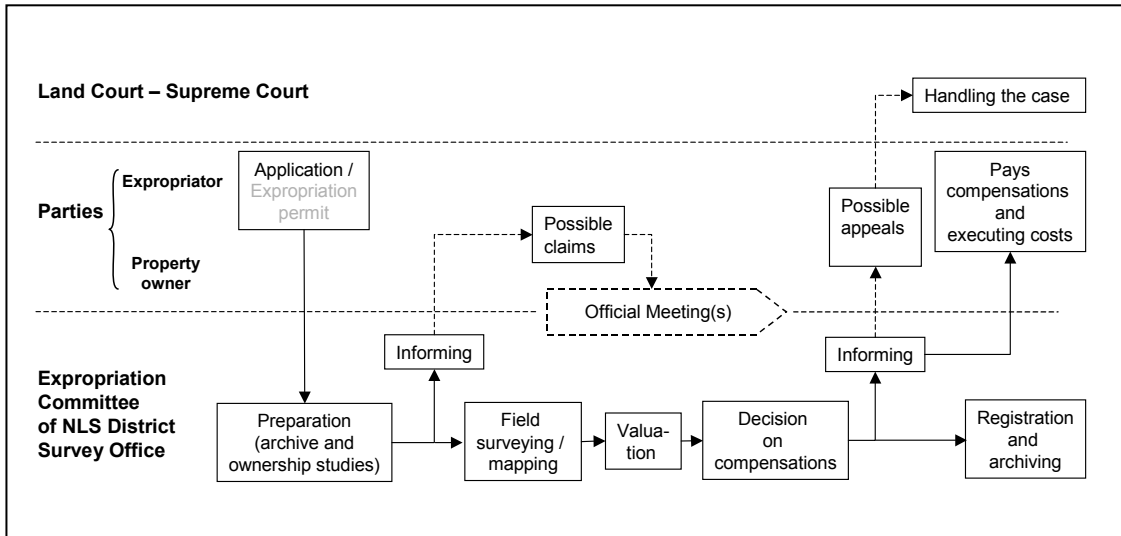


Table 1. Expropriation surveys of the year 2006 in Finland (NLS 2007a).

Every year about 1,400 legal expropriation surveys are carried out by the NLS. Table 1 shows the types and some approximate statistics on those surveys.

Type of Expropriation Survey of NLS	'Expropriator'	Surveys finished 2006	Average duration of the finished surveys 2006	In courts (% of the 2006 ongoing surveys)
Road Survey (Expropriation for highways)	Finnish Road Administration	460 <i>2221 km</i>	2-4 years	2 %
Expropriation for carrying out town planning	Municipalities	80	1-9 years	4 %
Expropriation for power networks	Energy transmission companies	16 <i>554 km</i>		1 %
Expropriation for railroads	Finnish Rail Administration	22 <i>13 km</i>		4 %
Expropriation for nature protection areas	Ministry of Environment	16 <i>615 ha</i>		8 %
Expropriation of reliction areas	Private owners of the shore land	621		1 %
Expropriation of common property units	Private land owners	96		1 %
Expropriation of part of a plot (in a town planned area)	Private land owners	25		4 %
Other	(Varies)	36		4 %

For example, in the year 2004 the total amount of the compensation determined in the expropriation surveys for public works and other public purposes was (NLS 2005 a):

- | | |
|--|------|
| ▪ Compensation for property acquisition | 13.8 |
| million € | |
| ▪ Compensation for disturbances and severances | 3.1 |
| million € | |

The Expropriation Act (4.1 §) forbids the use of expropriation procedures defined in that act if the property acquisition or compensation determination can be achieved by other means. In practice the use of other means like voluntary transactions and land exchanges has been quite rare, except for land acquisition for the nature protection areas. For example in the year 2004 the Finnish Road Administration acquired 88 % of the areas for new highways by expropriation and the remaining 12 % by voluntary sales. However during the last years land rearrangements have become slightly more popular among the public agencies utilising expropriation (later: 'expropriators'). The recent development of land consolidation processes at the NLS has been one reason for this (Heinonen 2005).

Quality management of the expropriation processes

Institutional Background

The National Land Survey (NLS) is responsible for the cadastral system, registers relating to real estates and general mapping in Finland. In the year 2006 the total number of the personnel was 1,739. Thirteen regional District Survey Offices employ 82 % of the personnel. The rest are working for six operational supporting units (16 %) and for Central Administration (2 %). (NLS 2007 a)

There are a little more than one hundred NLS cadastral surveyors that specialize in the expropriation surveys. These surveyors full the role of heads of the expropriation committees in the District Survey Offices. Typically they have a M.Sc degree in land surveying. Including support personnel the total number of NLS personnel working on expropriations is nearer five hundred. The total amount of actual working time effort spent on expropriation surveys in one year is approximately 150 working years (NLS 2007 c).

The NLS gets approximately half of its revenue from customers. The other half comes from the state budget and covers mainly development work, the maintenance of the registers and general mapping. In the year 2006 the majority (72 %) of the customer revenue (total sum of 54 million €) came from the fees for cadastral surveys. Subdivision surveys are the most common within this category of work with almost 17 000 surveys per year (2006). Because the expropriation surveys are more time-consuming and more dependent on personnel, they have correspondingly higher operational costs. So, as there are a smaller number of expropriation surveys

(see table 1), expropriation surveys generate a relatively bigger proportion of customer revenue (about 15 million € in the year 2006 (NLS 2007 b)).

Since 1999 the NLS has applied a process organization model. This means that all core-processes (along with their responsibilities) have been defined and documented. The management of all operations is implemented through this process structure. The ‘Process of Valuation Surveys’ is one of the core-processes of NLS (see Figure 2). Expropriation surveys are the main ‘products’ of this core-process.

The process-organization model of the NLS also provides a framework for the quality management of expropriation surveys. A description of these quality management practices follows.

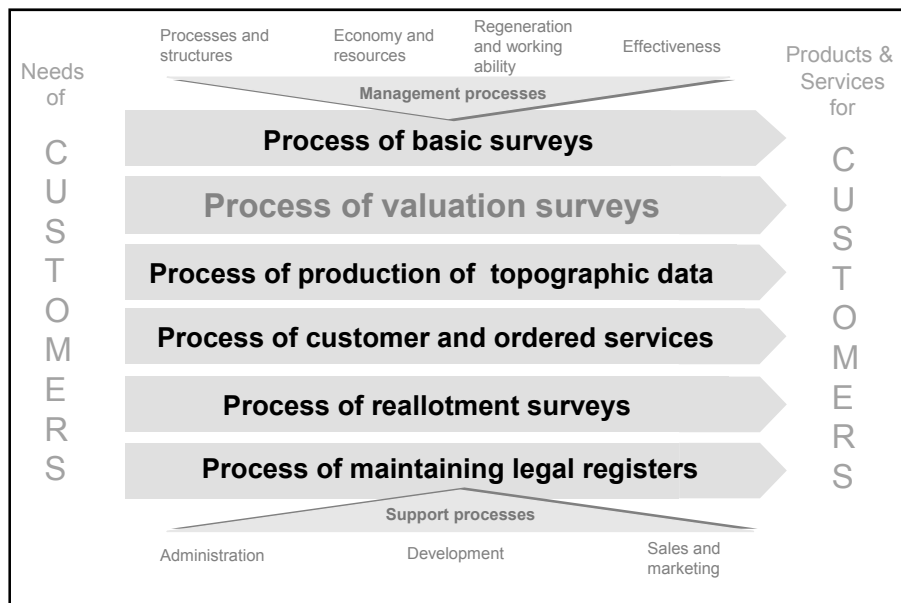


Figure 2. The core-processes of the National Land Survey (NLS) of Finland

Quality of Expropriation Processes

The concept of ‘quality’ has a countless number of definitions. Without getting too absorbed in all of them, the definition of ISO 9000 quality management system can be taken here as a good starting point. According to it ‘quality’ is a “degree to which a set of inherent characteristics fulfill requirements”.

Usually the requirements of the customers (i.e. customer needs) are seen as starting point for quality development. Also NLS has elevated the status of the customer to a special position (c.f. Figure 2). It has defined the

needs of the customers and interest groups of the Valuation Survey Process (expropriations) as is described below in Table 2.

Based on these customer needs the NLS has identified the following ‘critical success factors’ of the Valuation Survey (expropriation) Process:

- High quality of the (compensation) valuation procedures
- Uniform process in all units (District Survey Offices) of NLS
- Reliability of the cadastral system
- Customer satisfaction
- Consideration of the customer response
- Duration of the expropriation survey
- Economy of the production
- High professionalism of the personnel
- Atmosphere of the working environment

Table 2. The customers and interest groups of the Valuation Survey (expropriation) Process with their needs (Process Manual 2005, p.4-6)

Customers and interest groups		Needs (important that:)	
Parties	Applicants (expropriators) as Road Administration, Rail Administration, Energy transmission companies, Ministry of Environment, Municipalities	<ul style="list-style-type: none"> ▪ Informing of the survey is adequate and well-timed ▪ Treatment of the parties is fair and impartial ▪ Processing without delays ▪ Decisions are clear and justified ▪ Maps and documents are clear and simple ▪ The grounds for the executing costs are understandable and the costs are reasonable 	<ul style="list-style-type: none"> ▪ Cooperation in processes and data transmission runs smoothly ▪ Jointly agreed time schedules are met ▪ The duration of the process is as short as possible so that the possible interest payments remain low ▪ The principles of compensation are consistently applied in different parts of the country
	Owners and right holders of the properties		
External interest groups such as expropriation permit authorities (ministries), assisting experts (as forestry guidance organizations, Geological Survey of Finland, VTT Technical Research Centre of		<ul style="list-style-type: none"> ▪ Smooth cooperation within the process ▪ Especially for the courts it is important that the maps and the documents are clear, valuation standards and the grounds for the compensations are presented clearly and the information and guidance given to the parties is 	

Finland), Courts, attorneys		sufficient
Internal interest groups	Personnel of NLS	<ul style="list-style-type: none"> ▪ Leadership and management of the process is of good quality (clear goals, resources in balance with the goals, response from the management, incentive system working) ▪ Communications working within the process ▪ The atmosphere is good ▪ Training of the personnel is taken care of
	The Society	<ul style="list-style-type: none"> ▪ The cadastral system meets the standards of correctness and clarity ▪ The valuation (expropriation) surveys are carried out according to the legislation ▪ The quality of valuation (expropriation) surveys remains high so that the status of NLS as a 'expropriation and compensation body' is not questioned ▪ The valuation surveys production obtains the goals set by the management

The customer needs and critical success factors define the quality of expropriation processes. This quality will also be the further object of measurements and quality management (see below in Sections 3.3. and 3.4).

Management of the Process

As we saw above the quality at NLS is seen more as the quality of the whole process and its success in meeting the needs of customers rather than the quality of particular products and stages of the process.

The quality management of the process is put in practice with 'tools' such as:

- Clear process and quality responsibilities
- Exhaustive process and product descriptions
- Process instructions, manuals and standards
- Utilizing the process databases and -systems
- Auditing
- Regular customer satisfaction studies
- Continuing training of the personnel
- Transparency of the process among both the personnel and customers

According to the 'Management Handbook' (NLS 2005 b) of the NLS "each of the core-and support-processes have a process-owner, who is

responsible at the NLS level for: developing the processes, defining the processes, documenting and maintaining the Process Handbook, supervising and controlling the processes, evaluation of processes, producing other instructions, developing the quality measures of the process, dealing with customer response and developing ideas and being responsible for the products, services, supporting data systems and databases of the process.”

The Valuation (expropriation) Survey – core-process has a process-owner at the Central Administration of the NLS. This NLS manager is responsible for the process duties identified above. He has a supporting team made up of three experienced leaders of expropriation committees (District Survey Officers) and one representative from the development unit of the NLS. In every District Survey Office there is a process-chief; a person in charge of the Valuation Survey Process (NLS 2005 b). With this rather modest organizational model the process (i.e. the ‘way of doing things’ at the District Survey Offices) is lead and managed.

The process personnel have naturally the most important role as they are responsible for the quality of the work itself. This has been emphasized in the process manuals. All the sub-processes of the Valuation (expropriation) Survey process have been described, documented and are well accepted by NLS personnel. This time-consuming and in some cases onerous effort has been essential for the subsequent refinement of the processes. An example of a workflow description of an expropriation sub-process is as Figure 3.

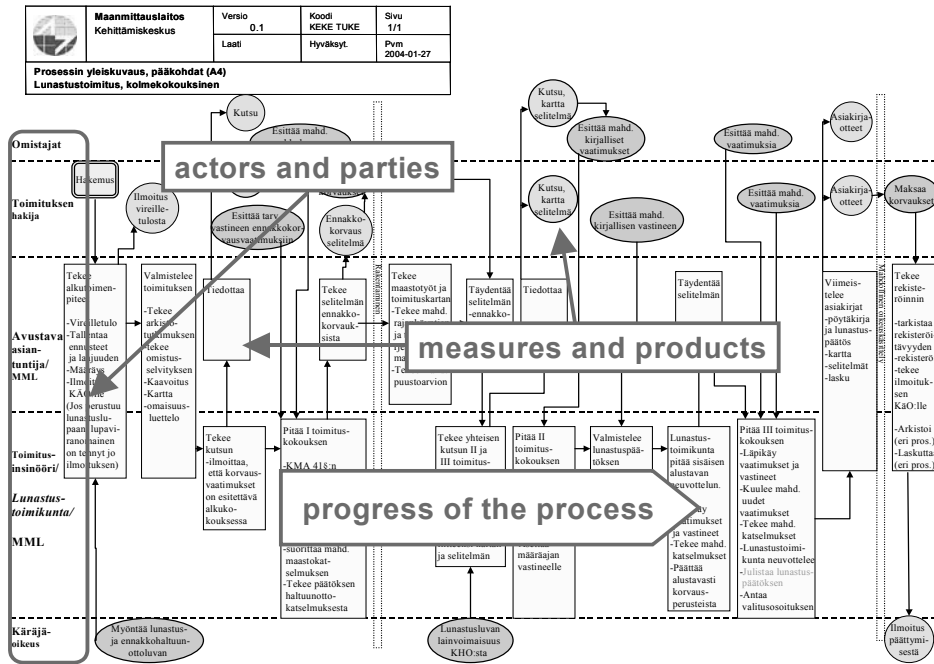


Figure 3. An extract from a workflow description of an expropriation sub-process (Process Manual 2005)

The legislation regarding the expropriation is naturally the leading and actually the only binding ‘instruction’ for the expropriation committees of NLS. The committees are independent in decision-making and, for example, the Central Administration and the process-owner can not directly influence certain kind of decisions and in particular valuations and compensations for individual cases. Still the demand for process consistency across all districts establishes a need for having a range of procedure instructions, manuals and standards. There are, for example, documents such as:

- ‘Process Manual’
 - Overall description of the process
 - Customers and interest groups with their needs
 - Responsibilities and authority of the process
 - Critical success factors of the process
 - Measurement of the process
 - Process descriptions (links to separate detailed descriptions)
 - Development of the process
 - List of legislation, instructions and references
- ‘Valuation of the Compensations’ – procedure instructions
 - Handling the claims
 - Valuation observations
 - Description of the target to be compensated
 - Market analysis
 - Valuation methods
 - Comparable data
 - Valuation
 - Decision on compensations with justification
 - Checklist for quality control
- ‘Valuation and Compensations’ – background material
 - Valuation methods
 - Geology
 - Indexes
 - Relative valuation (grading)
 - Agriculture
 - Forestry
 - Severances and damages
 - Plots and gardens
 - Formulas for income approach
 - Taxation
 - Unit prices and costs

In addition to these main instructions there are numerous studies published by the NLS dealing with real estate prices. The NLS is responsible for maintaining the national ‘Real Estate Market Price Register’. This huge database has made it possible to produce statistical ‘price models’

and 'price indexes' for different types of land use to assist valuers. Together with expropriators (e.g. agencies responsible for Road Administration and Rail Administration), the NLS has also documented 'quality models' for different products of the expropriation process to help smooth data exchange during the process. Specifications of map-data formats and contents of different kinds of documents are examples of these 'quality models'.

The cadastral operations of NLS are nowadays fully computerized and all the produced data is in digital form. All the cadastral surveys - also expropriation surveys - from mapping stage to documentation and registration are integrated into a single JAKO-GIS system. The system has been developed to meet the needs of processes. It has features, which make the users work in a consistent way. Also the outputs and printouts such as the compensation documents have a uniform format. A view from JAKO-GIS system is presented as Figure 4.

The statistics of expropriation surveys such as working and calendar time per each stage are also registered so the duration of the procedure is possible to measure (see more about measuring in Section 3.4). The web-technology is utilized as well. An internal 'Intranet' is one of the most important process management tools. Figure 5 shows the simple ways, how it is used as a steering instrument and as a means of storage for different kinds of process information.

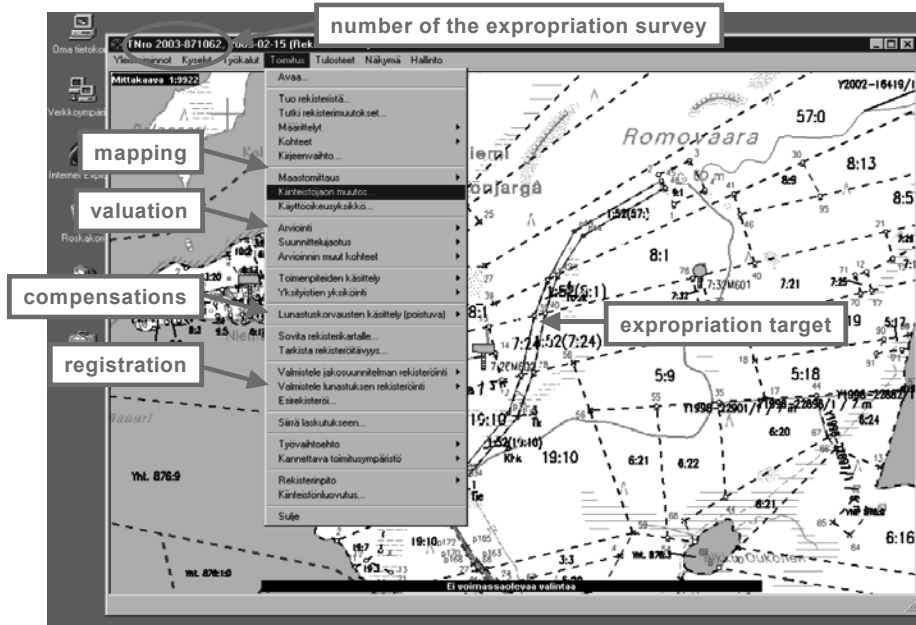


Figure 4. A view from JAKO-GIS (NLS) cadastral survey production software.

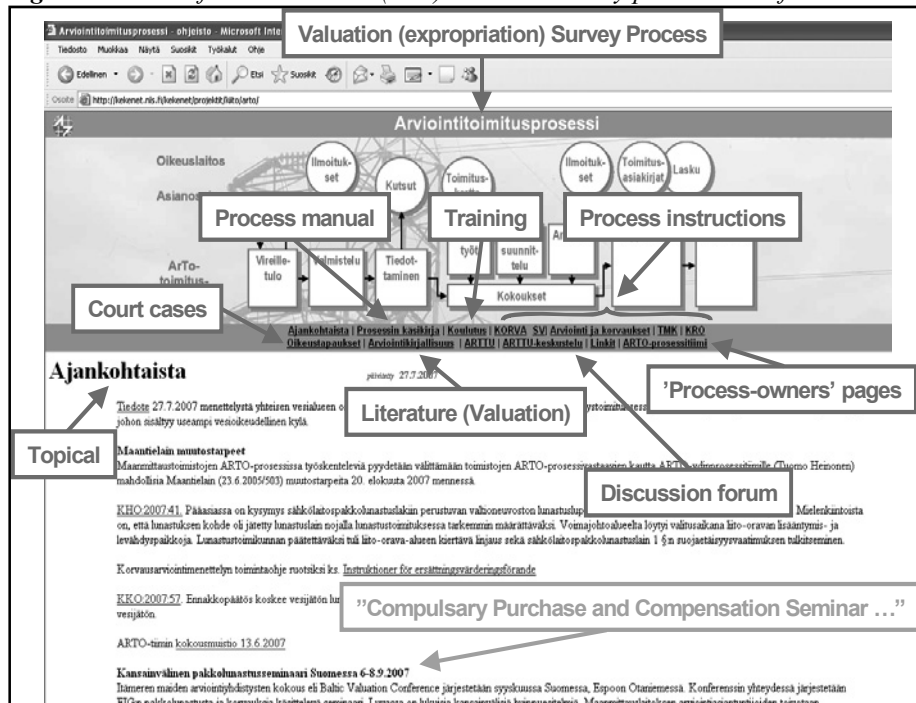


Figure 5. A view from internal 'Intranet' (NLS) pages of the Valuation (Expropriation) Survey Process.

Regular auditing of the process and customer satisfaction studies are essential quality management tools. As they are more related to the quality measurement, they are presented in the next section (3.4).

Training of the personnel is continuous. In addition to the annual process seminar for the heads of expropriation committees, several training events with special topics are organized every year. The training material is stored on the 'Intranet'. The personnel are encouraged to pass national authorization tests for valuers (based on international valuation standards) even though the legislation does not require this of them as NLS employees.

Transparency of the process among both the personnel and customers (parties) is important. It is a way to maintain the credibility of the NLS as an impartial body in their dealings with both expropriators and property owners. All instructions and studies of the process are available for the public – nowadays more and more on the web. In individual expropriation cases valuations and decisions on compensations with their justifications must be well documented. This transparency forces the NLS to control the quality of the process continuously.

Measuring and Improving the Quality

Measuring and improving are the next steps after process descriptions have been completed and the process implemented.⁴ Some measurements and process improvements that have been made to the Valuation (expropriation) Survey Process illustrate these important steps.

At the NLS the quality measures of all the processes are grouped in four categories:

Processes and structures

Influence of the processes

Economy and resources

Regeneration and ability to work.

Also the Valuation (expropriation) Survey Process has quality measures in all these categories but here only those from the first two categories listed above. All these measures of quality are in one way or another based on the customer needs and critical success factors identified earlier (refer Section 3.2). They are (Process Manual 2005):The quality of valuation for compensations

Level of process uniformity and compliance with the process instructions

Customer response

Duration of the expropriation surveys

The 'quality of valuation for compensations' is measured by the annual quality reviews, which are completed by the District Survey Offices themselves as a cross check. A sample of expropriation surveys is collected

⁴ See the well-known "PDCA (Plan, Do, Check, Act)" or "Deming/Shewhart" – cycle http://en.wikipedia.org/wiki/Shewhart_cycle

from each office and experts from another office check them. This checking is done by using a checklist from the 'Valuation of the Compensations' – procedure instructions (refer Section 3.3). The main purpose is to check if there have been any departures from the agreed process. For example has the comparable sales data used to value the property been properly presented in the survey documents. The percentage of deviations from the specified procedure for the year is an important performance measure for each District Survey Office. It also has a bearing on personnel incentive rewards.

The 'level of process uniformity and compliance with the process instructions' is measured by audits. The NLS has trained some thirty internal part-time auditors to monitor all core-processes. Some of them are heads of the expropriation committees. The last overall audit of the Valuation (Expropriation) Survey Process in all District Survey Offices was done during the years 2004 and 2005. In the year 2006 there was a special audit effort focused on expropriation surveys for Road Administration and Rail Administration. For this audit the parties including representatives of the property owners were able to participate in the audits.

The results of the audits have helped the process-owner not only to locate the weaknesses of the process but also to find what constitutes 'best practices' from reviewing the application of the process in all the District Offices and adopting these best practices nationwide. Also the auditors have learned from the experience gained in their neighbouring offices.

The 'customer response' is collected with a special system serving all the NLS processes. The customers can themselves send their feedback through the web. The personnel of the NLS are also responsible to record every feedback into the same system. The NLS is carrying out also more comprehensive customer satisfaction studies in every few years. Depending on whether the response demands actions at the process level or at the District Office level, the process-owner or the district personnel will make an appropriate response to this feedback.

Dissatisfaction with the compensations is not seen as a quality matter. Most of the claims to the Land Court are related to the level of compensation. For that reason the number of cases in the courts after NLS's expropriation survey stage is not a reliable measure for the process.

'Duration of the expropriation surveys' is the last but not least important measure of the process. Both the property owners and expropriators are interested in prompt process. The average duration of each expropriation survey type are monitored and reported to the expropriators. All the improvements of the production systems and re-modelling of the process aim to shorten the process duration.

Problems and challenges

According to the 'Application for the National Quality Award' (NLS 2004, p. 6) before moving to the process organization (1999) "the operations of the NLS didn't meet the growing criteria set out by management,

information technology and quality, because the procedures of the numerous units of the decentralized organization were disunited.” This disunity was also a problem of the valuation (expropriation) surveys.

The present centralized process management with standardizing process manuals has solved part of the disunity problem, but not entirely. There are still differences between the courses of actions of the individual heads of the expropriation committees. Their role as independent ‘first instance judges’ when defining the compensations may sometimes justify the ‘immunity’, but one should not hide behind it. Underlining the importance of well-documented valuation methods, comparable data, analyses and clear justifications of the decisions is a tried and proven method to solve this problem.

Improving the productivity and effectiveness of the Valuation (Expropriation) Survey Process is still a challenge. The duration of the expropriation surveys hasn’t shortened significantly. Maybe total restructuring of the process would help. However, this would also call for major amendments to the legislation. These issues will be considered during the preparation of the ‘Strategy for the Valuation (Expropriation) Survey Process 2009-2015’, which will start at the beginning of the year 2008.

Conclusions

The Finnish expropriation procedure - as an administrative one - differs from most of the compulsory purchase systems in the world. Compulsory purchase as a tool for land acquisition for public purposes seems to be more popular in Finland than in many other countries. Even though the land rearrangements and land exchanges have become more known among the expropriators, still the expropriation process is preferred.

Viitanen (2004 p.7) writes: “It is hard to find negative aspects in the procedure. Doubts about the legal competence of the committee are expressed most often because the composition does not include a lawyer. Impartiality of the committee is also a very important aspect. In Finland there have not been any bigger problems in the [expropriation] practice. The main reason is probably [to do with] the education of surveyors...”

Viitanen’s argument is undoubtedly true, but it may not be the only reason. The National Land Survey (NLS) has through the decades been active in developing real estate valuation practices and carried out main part of the real estate valuation research in Finland. It has also offered intensive training for its personnel and sometimes also for its counterparts. High professionalism in real estate valuation and solid expertise in expropriation legislation has given the NLS credibility in society and critical comments against it as expropriation body are not been heard often.

During recent years the process management and the quality management applied through the processes have proved to be a good way to keep the situation in hand and society satisfied with the respect to the delivery of expropriation services by NLS. However the NLS cannot be lulled into believing that this ‘monopoly’ position will last forever without

continuing to make the effort to improve the process and itself as an organization.

References

- Heinonen, T. (2005) Land for Exchange and Land Banking in Land Development Projects. National Land Survey - Development Centre / Publication 98. Helsinki 2005. 73 + 135 p.
- NLS (2004). National Land Survey. Application for the National Quality Award. Helsinki 2004. 73 p.
- NLS (2005 a). National Land Survey. Data from the 'Legal Survey Register'.
- NLS (2005 b). National Land Survey. Management Handbook. Helsinki 2005. 10 p.
- NLS (2007 a). Land Surveying 2006 - Yearly statistics of National Land Survey. Helsinki 2007. 24 p.
- NLS (2007 b). National Land Survey. Information systems for the management.
- NLS (2007 c). National Land Survey. Data from the 'Working Hours Register'.
- Process Manual (2005). The Process of Valuation Surveys – Process Manual. National Land Survey – Central Administration. Helsinki 2005. 14 p.
- Viitanen, K. (2004) Compulsory Purchase as an Administrative Procedure – Based on Finnish Legislation and Experiences. 3rd FIG Regional Conference for Asia and the Pacific Surveying the Future – Contributions to Economic, Environmental and Social Development. Jakarta, Indonesia 3 – 7 October 2004. International Federation of Surveyors FIG. 9 p. [<http://www.fig.net/jakarta>]