# STUDY ON THE IMPROVEMENT OF THE CADASTRAL SURVEYING ORGANIZATION

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Key words:

### ABSTRACT

Since the cadastral division was set up in the Ministry of Home Affairs in the Korean Empire in 1895 for the purpose of forming modernized cadastral system, all of cadastral surveying was dealt by the government. In 1938, Korea Cadastral Association (KCA) was established to perform cadastral field surveying by the government. It has developed to present Korea Cadastral Survey Corporation (KCSC).

However, since it is as the only organization to carry out cadastral surveying for over sixty years, which were previously handled by the government, some problems of this monopoly system have been raised.

Therefore, in order to overcome the problems of the Korean cadastral system, the history of cadastral system of Korea and the problems will be investigated and analyzed so that the improving method for cadastral surveying organization could be suggested in this paper.

## 1. INTRODUCTION

The purpose of this study is to suggest an improved method of the Korean cadastral surveying organization system so that the monopoly system, in which KCSC is the only organization to perform the various kinds of cadastral surveying, could be changed to an open and competitive system according to the principles of free competition.

Korean cadastral related organizations can be divided into three functions. Firstly, there are the cadastral administration organizations in the central government and self-governing bodies. Secondly, the cadastral surveying organization performs the actual cadastral surveying. The third groups are the education organizations which are composed of cadastral departments in high schools, technical colleges and universities to increase cadastral manpower.

Since 1895 when the cadastral division was set up in the Ministry of Home Affairs in the Korea Empire for the purpose of forming a modernized cadastral system, all of the cadastral surveying such as initial registration surveying, subdivision surveying and boundary relocation surveying were dealt by the government operations. In 1938, KCA was established to perform cadastral field surveying in place of the government. It has developed to the present Korea Cadastral Survey Corporation which is a world-wide cadastral surveying company and employs about four thousand cadastral engineers.

However, since KCSC took over the cadastral surveying affairs from the government and has carried out cadastral surveying for over sixty years, some problems have been caused by this monopoly system. Therefore, this paper will investigate and analyze the history of the Korean cadastral surveying system and its problems in order to suggest the cadastral surveying organization which will be most suitable for the Korean situation.

## 2. HISTORY OF CADASTRAL SURVEYING ORGANIZATIONS

## 2.1 Central Government

In 1895, the Korean Empire started to prepare for the modern cadastral system by setting up cadastral department in the Ministry of Home Affairs. After this, the departments in the central government which undertook cadastral surveying were transferred to Yanggiamun, Jigyeamun, Takjibu, Ministry of Home Affairs, Ministry of Agriculture, Ministry of Trade & Industry, and Ministry of Finance. However, by 1937, all of the cadastral surveying affairs were performed by the government

## 2.2 Korea Cadastral Association

In 1938, KCA was established to take exclusive charge of cadastral surveying which had previously belonged to the government. This was caused by a number of civil appeals incurred due to sharp the increase of surveying affairs on lands and the need for securing sufficient budget, surveying engineers and instruments.

## 2.3 Korea Cadastral Survey Corporation

KCA was changed to KCSC in 1977 by the government and the structure of it was widened to a nationwide level in order to be responsible for systematic cadastral surveying. The details of it is as follows.

Firstly, all of the employees, including surveying assistants, were appointed to regular staffs. Secondly, the salaries of the members of KCSC were changed monthly pay periods. Thirdly, a three level hierarchical structure- head office, branch offices in metropolitan cities and agencies in cities, districts and counties- was installed to work in concert with the cadastral administration system. Fourthly, for the purpose of training and education of cadastral engineers and research and development of cadastral technology, Cadastral Technology Training & Research Institute (CTTRI) was strengthened and designated as an official educational institution to train cadastrerelated public officials in local governments. The development process of KCSC is as follows.

## 2.3.1 History

KCA was founded in 1938 and changed to KCSC in 1977. With a history of 62 years, it has become the only specific institution doing cadastral surveying in Korea.

## 2.3.2 Structure

With the head office is located in Seoul and branch offices in metropolitan cities and provinces, local agencies in cities, districts and counties, as is the case with the government administration structure, KCSC has become a nationwide cadastral surveying organization.

### 2.3.3 Manpower

Concerning manpower, KCSC has many highly skilled technical members and has grown into a professional organization for cadastral surveying. There are about 4,000 cadastral engineers and cadastral technicians in KCSC.

### 2.3.4 Affairs

KCSC fulfills all aspects of cadastral surveying affairs for the government including initial registration surveying, subdivision surveying, boundary relocation surveying and land numericalization surveying. It sends the surveying results to the cadastral departments in the local governments to examine them. After KCSC receives the results from them, it is allowed to offer them to the public. KCSC's cadastral surveying record of performance and income by year are in the table 1.

#### Table 1. Cadastral surveying record of performance and income by year

Year Division	1995	1996	1997	1998	1999
The number of surveying (thousand unit)	2,803	3,873	2,383	2,500	2,178
Income(? mn)	151,061	202,442	183,241	202,256	174,262

#### 2.3.5 Training & Research

Since 1935, KCSC has set up education programs to bring up cadastral engineers and has been in charge of the training of them. And in 1953, Cadastral Surveying Institute (CSI) was established to increase new cadastral manpower.

The cadastral department in universities, technical colleges and high-schools have been installed since 1977. In 1999, CSI was changed to CTTRI in order to train the members of KCSC and cadastral public officials and to take charge of cadastral research affairs.

#### 2.3.6 Property

KCSC has established the office buildings of branch offices and agencies in order to secure sound and stable development and increase staff's welfare. It has grown to be one of the most stable surveying institutes in Korea, having no debts at all.

KCSC's prepared properties by year is as follows in the table 2.

## Table 2. Properties prepared by year

Year Division	1995	1996	1997	1998	1999
Total(? mn)	119,704	166,675	210,186	211,149	230,865
Movable property(? mn)	79,008	107,191	129,360	122,918	135,254
Real estate(? mn)	40,696	59,484	80,826	88,231	85,611

The history of cadastral administration and surveying organization after 1895 is as follows in the figure 1.

## 3. **PROBLEMS**

Cadastral surveying affairs in Korea were dealt with by the government directly from 1895 to 1937. From 1938 to the present KCSC has reformed them for the government. However, since early 1990s this type of vicarious execution system has been confronted with criticism from the public that it does not comply with the needs such as liberalization, democratization and openness of people in the public service.

## 3.1 Delay of cadastral surveying

According to the enforcement ordinance of cadastral law, a surveying period of five days in a place easy of access such as urban areas and seven days in a place difficult of access such as rural areas is permitted. However, because cadastral affairs are overconcentrated by the regions and seasons, in some developing areas of cities and in spring it is difficult to deal with cadastral surveying within the period allowed by the law. This has caused dissatisfaction from the people who apply for cadastral surveyings.

## **3.2** Difficulty to prove surveying results

In a case where someone is not satisfied with the surveying results carried out of KCSC, there is no other cadastral surveying institute to examine the results of KCSC, except the supervisory offices like cadastral departments in MOGAHA(Ministry of Government Administration and Home Affairs), metropolitan cities, provinces, cities, counties and districts. With this system, it is on likely whether a surveying dispute will be easily solved and public criticism and discredit may be brought upon KCSC.

## **3.3** Weakening competitiveness

As a non-profit organization, KCSC has had no rivals while accomplishing its various types of cadastral surveying and cadastral maps under the protection of government over sixty two years. This brought about non-flexibility for KCSC to cope with new needs of the public and service competitiveness.

Therefore, public opinion is that KCSC has become highhanded, less competitive and less spontaneous.

## 4. **IMPROVING METHOD**

### 4.1 Internal method of improvement

### 4.1.1 Flexibility of structure of KCSC

Because cadastral surveying affairs are over-concentrated in the urban areas and in the spring, it is sometimes hard to meet the legal deadline of cadastral surveying. KCSC should, therefore, place its members according to the fluctuation of surveying numbers such as the areas and periods when manpower is short due to the increase of activity.

The structure of KCSC have to be managed flexibly so that surveying engineers can be transferred to these areas in order to finish the work within legal term.

#### 4.1.2 Establishment of examining organization for surveying results

There should be a state organ for the examination of results in every metropolitan cities, provinces, cities, counties and districts for surveying results to prove fair, perfect and reliable surveying results whenever people are not satisfied with them. Beside this, an independent organization has to be set up to deal with civil petitions from the people who doubt the surveying results performed by KCSC.

### 4.1.3 Training for enhancing competitiveness

In order to solve the criticisms from the public that KCSC is lacking in competitiveness and auto-genesis and its employees are unkind, service training has to be put into effect continuously for all of the four thousand members of KCSC. In this, how to cope with the phone, how to explain surveying results and examples of solving civil petition for surveying results should be included so that KCSC will be able to provide kinder and more comfortable service to the public.

## 4.2 External improving method

#### 4.2.1 Setting up another cadastral surveying organization

It may be suggested that another cadastral surveying organization or private cadastral surveying office could be set up. By revising cadastral law, a cadastral surveying office registered by the government, will be opened to compete with KCSC. This will make it possible to supply a high quality of surveying service to the public.

#### 4.2.2 Setting up cadastral surveying offices

It is suggested that incorporated cadastral surveying offices or private offices beside KCSC may be set up. By revising cadastral laws, it is possible to be free competition between KCSC and them, supplying better cadastral services to the public.

## 5. CONCLUSION

Since the cadastral division was set up in the Ministry of Home Affairs in the Korean Empire in 1895 for the purpose of forming modernized cadastral system to 1937, cadastral surveying affairs in Korea have been performed by the government.

However, as cadastral surveying affairs increased every year and required a sufficient budget, surveying engineers and instruments, Korea Cadastral Association was established to perform cadastral field surveying in place of the government in 1938.

It developed to present KCSC in 1977 and has performed cadasral surveying in place of the government for over sixty two years.

Recently, public criticisms of unkindness on the part of the staff of KCSC, delay of cadastral surveying, not installing an institute to examine whether surveying results of KCSC are correct and the weakening of competitiveness of KCSC has been raised.

It is argued at the government level that cadastral surveying should be opened to comply with the current of the times and move toward self-control, openness and competition.

However, the advantages of the current cadastral surveying organization-management of CTTRI in KCSC for training cadastral engineers, research, education, improving cadastral technology, supporting cadastral departments in high-schools, colleges and universities, granting scholarships to distinguished students and operating a system of cadastral surveying which is systematic and unified nationwide-should not be shaken in enhancing organization of cadastral surveying in Korea.

KCSC has to educate its members continuously in order to break from the convention. It should also supply people with kind service and swift and correct surveying results. That will strengthen KCSC's competitiveness and restore the public trust. The Korean government should review open systems of cadastral surveying organization sufficiently so that it could help to contribute stable and continuos development of KCSC and remove public criticism.

Before the opening of the cadastral surveying system, the rational adjustment of surveying fees, securing the liberalization of cadastral surveying organization, alternatives to solve cadastral disputes and compensation for errors from the surveying should established in advance, so that it will be possible to provide a better quality of service to the public.

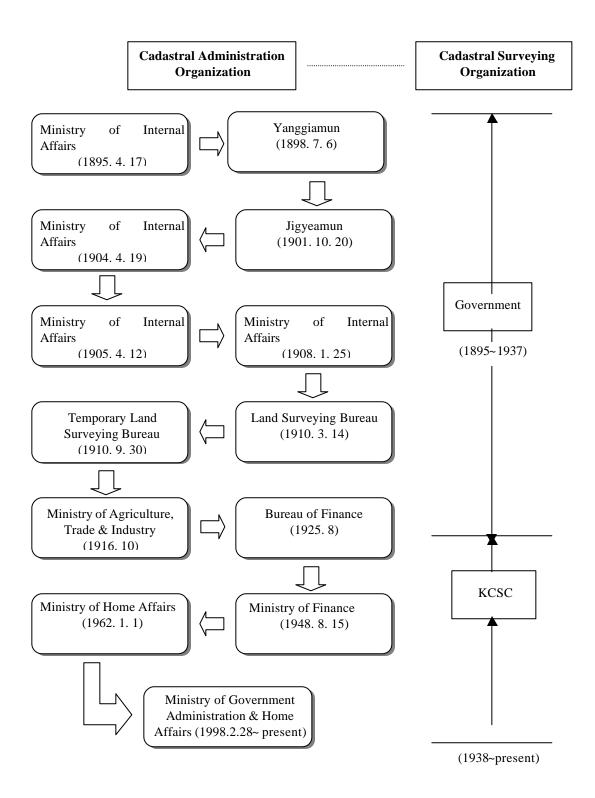


Figure 1. The history of cadasral administration & surveying organization

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