

Process Management for Effective Disposition of State Land in Korea

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Key words: Business Process Management (BPM), disposition, work process analysis

SUMMARY

Recent information technology infrastructure has been growing the new technology of efficient business process management that support integration between organizations based on ICT environments.

The changing circumstances of state-owned land maintenance demand a more organic network between various concerned organizations but the actual integration isn't much more than transference of data. For an effective work process, we need a more coherent procedure that emphasizes on the work itself.

Adopting a BPM, a government can reduce the maintenance costs of state-owned land and increase its effectiveness. A BPM is indispensable considering the circumstances of national information infrastructure.

Complex processes of current business should be improved for the effective management of public land understanding by eliminating unnecessary procedures and analyzing consumptive factors. The Business Process Management (BPM) gives a solution for solving those problems. This paper will introduce that disposal processes among management of state land are designed and standardized using concept of BPM based on LIS environments.

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1. INTRODUCTION

The national and public land of Korea is important elements as a fundamental resource to perform government administration. The central government has allocated the authority of public land management to the local governments in order to secure a sound financial resource to perform local land management. In 1994, the central government has changed the policy of public land management from 'simple management and conservation' to 'active practical use.' For this reason, in-depth analysis of current public land is highly demanded.

However, currently the local governments do not have a good solution due to lack of the long term vision and strategies for the improvement of their owned public land. At this moment, the local governments are focusing on levying violation fine unauthorized use and unauthorized occupation of public land by citizens. The central government analyzed current management process of state and public land because processes of those land management are passed several related department within central government or local governments. To find spatial information where public land is located, local governments can access the cadastral information based on Land Information System (LIS). It is necessary to share improved business processes within related departments or organizations.

Complex processes of current business should be improved for the effective management of public land understanding by eliminating unnecessary procedures and analyzing consumptive factors. The Business Process Management (BPM) gives a solution for solving those problems. This paper will introduce that disposal processes among management of state land are designed and standardized using concept of BPM based on LIS environments.

It is possible to enable standardized business process to deal with the disposition of state land across the several related departments as well as to make the most suitable business process of the organization. BPM will provide a modeling of decision supporting system for the state policy to extend and apply the practical use of public land. It will also help to get better understanding of complex regulations and guidelines of the business processes of the disposition of public land.

2. BUSINESS PROCESS MANAGEMENT

2.1 General notion

A Business Process is a collection of consecutive or simultaneous work activities designed to produce a specific output (service, product) for customers. It involves various structured methods in order to optimize constantly a workflow of organization. Thus, a business process management (BPM) designates a set of techniques elaborated to define work activities that might take place in an enterprise, or between a customer and a service provider.

BPM (Business Process Management) is one of the IT Solution categories and it's also called workflow + EAI (Enterprise Application Integration). In a process-based organization, the employees can learn their work following its pre-defined processes and they can avoid possible errors that might occur. Each work activity has its own input and output, and this permits the employees to handle in time what must be done in the process and to grab the general ideas of how things are done in that organization.

2.2 The importance of a business process management

Adopting a BPM, a government can reduce the maintenance costs of state-owned land and increase its effectiveness. A BPM is indispensable considering the circumstances of national information infrastructure. BPM enables to provide transparent work process for staffs who deal with management of state land as well as to reduce duplicate work or roles within an organization. However, it is necessary to analyze the user's need and to make workflows in order to run effective land maintenance processes but, up to this time, it seems that a lack of conscience delays it.

The changing circumstances of state-owned land maintenance demand a more organic network between various concerned organizations but the actual integration isn't much more than transference of data. For an effective work process, we need a more coherent procedure that emphasizes on the work itself.

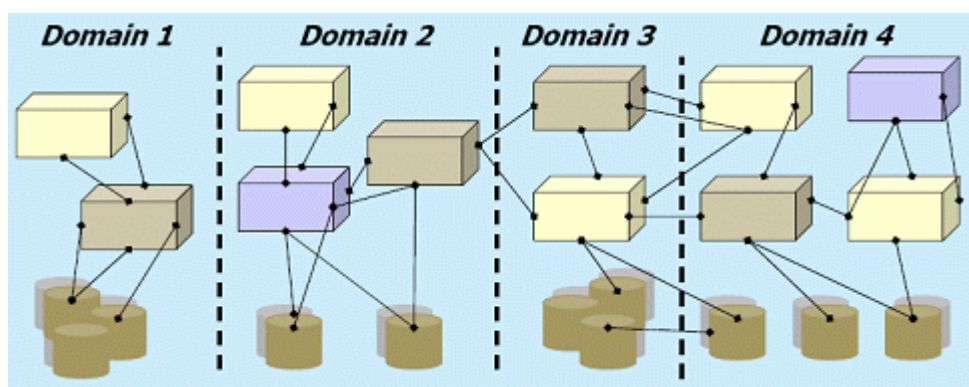


Figure1. Concept of Business Process Management

We start from the idea that a well-defined process can improve the productivity and reinforce the competitiveness as a means to have a competence in the end.

One, make visible the invisible processes.

Two, automate as many processes as possible.

Three, offer a work-based integrated system.

Four, evaluate the effectiveness of process through case history.

Five, offer a process that can easily absorb a modification.

Six, provide a flexible system to exterior change of circumstances, i.e. change of regulation and methods etc.

3. STATUS OF NATIONAL LAND MANAGEMENT IN KOREA

3.1 Managerial Structure

The national property in Korea is classified into two parts. One is the state-owned land and the other is public land which is owned by a local administration body. The public land is managed by the following different organizations such as local administration body (LAB), Korea Asset Management Corporation (KAMCO) and Korea Land Corporation (KLC).

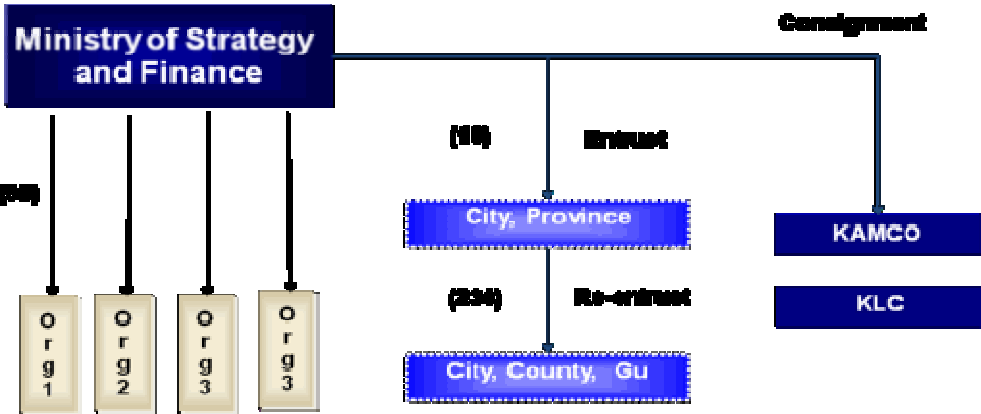


Figure 2. Organization structure for managing the state land

The central government entrusts a local government with the national land management task and the local government re-entrusts it to lower level of local government body such as city and county. Recently an effective management of national property is assigned as one of innovative tasks, this task entrusts a private professional authority for more effective management. The land which is not valuable as national land is sold or leased to the citizens through KAMC.

3.2 Managerial Status

The central government and local government owns 15.9% and 6.9% of total area of state and public land as of the end of 2004 and this is equivalent with 22.8% of total area of Korea. Among the land, the value of the land which is flexible for the use or the sales is equivalent with \$28 billion (State land : \$15 billion, public land : \$13 billion).

However this large area of land is recognized as simple management object rather than effective management object because of the lack of management personnel.

Since the existing management policy which is preservation approach in terms of state and public land management has been confronted with limitation, the "state land trust system" was introduced in 1994. However there have been the following problems; lack of coordination function in central government, lack of capacity for local government authority and lack of institutional setting which is supportive for facilitating investigation and utilization. Furthermore since the state land management information is managed to focus on text data, the information does not contribute to decision making process.

Considering all these problems on state land management, it is necessary that the state land management should be analyzed business process based on land information.

4. STATE LAND MANAGEMENT PROCESS

The state management work is complicated processes and it involves many different stakeholders such as: central government, local government, related organization and individuals. Especially it is necessary to check the adequate conditions and get admissions when sell or lease the state land and a planning and monitoring process is necessary as well.

4.1 Component of business process

- Mega-Process : Present a life cycle which is covers overall process on state land management
- Process : A lower level process which is composed of life cycle process
- Activity : An activity for performing process
- Task : A minimum unite for work

A life cycle process is a top level concept similar to a frame structure for construction building. It is composed of primary life cycle, support life cycle and organization life cycle.

- Primary life cycle process: A prime process of state land management which covers from project ordering to maintenance.
- Support life cycle process : A process for supporting other process such as quality control and documentation
- Organization life cycle process: A process for managing the primary life cycle process and support life cycle process, process engineering, human resource development, performance management. The state and public land management process plays the role which providing a standard process and guidelines.

4.2 Definition of state land disposal

The disposal of state land can be classified by sale, exchange, lending and transferring. Among this, the sale is the most frequent type of disposal. The state land sale is the act that transferring a property ownership to the individual in returns for paying the value of the property.

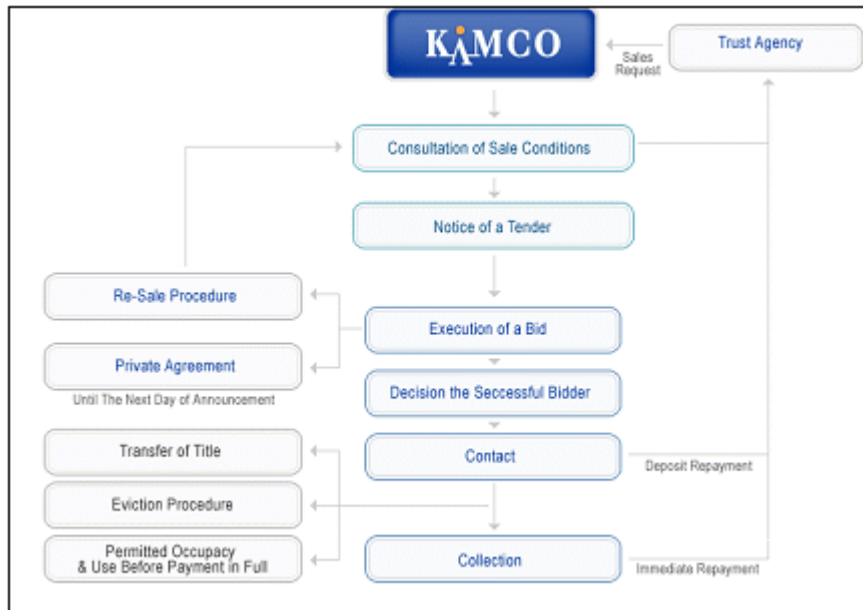


Figure 3. General process to dispose the state land in KAMO

The following is the state land disposal cases.

- Disposal standard by law : Disposal is imposed by individual Act
- Disposal standard by public purpose : Disposal is limited for the specific project purpose
- Disposal standard by inadequate preservation property: Disposal is unavoidable considering the location, feature and land use.

4.3 Design of disposition process based on LIS

4.3.1 Setting up disposition standard

As it is better to sell certain state lands, central government considers firstly position, size, shape, use of a target property through referring a matter to a committee. The disposition process follows a bid of open competition in principle but followed cases follow a private contract.

<Table 1> Disposition principle of incongruent preservation

Principle of land area	<p>* Special city&Metropolitan : 300&sup3</p> <p>*Urban area: 500&sup3</p> <p>*The others: under 1,000&sup3</p>
Principle of utilized incongruence	<p>*Disposition of state interests to the share owner with government (Small area)</p> <p>*land parcel under 5m or closed road;closed river;closed ditch water</p>
Principle of land price	<p>* Special city&Metropolitan: \$300,000</p> <p>* Urban area : \$200,000</p> <p>*The others : Inevitable merge parcel as under \$100,000</p>

The decision to dispose the state land is necessary for the elements of a comprehensive analysis by a variety of needs, because it determines overallly spatial elements and their properties such as land ownership history.

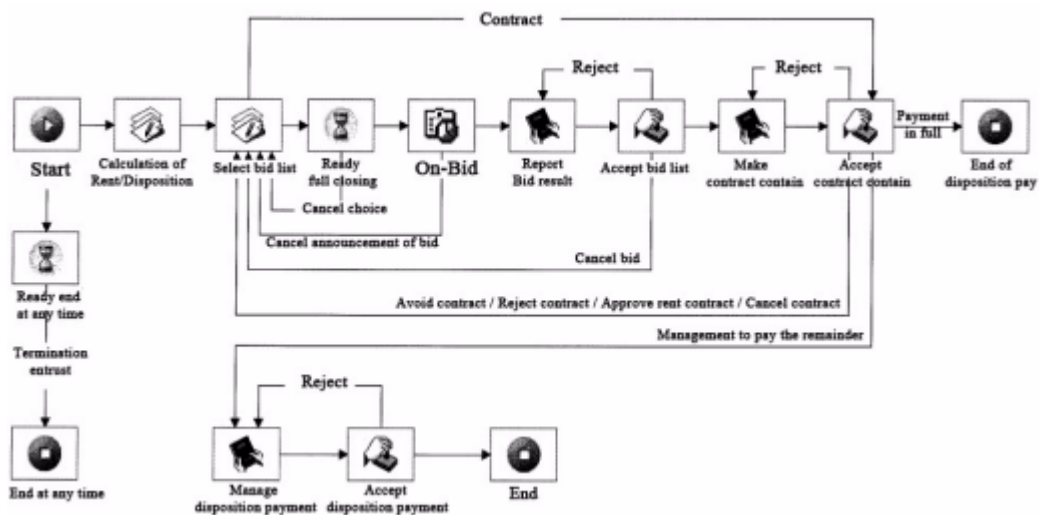


Figure 4. Analysis of state land management process of state land using BPM

Therefore, the time based on history information of the state land, pointed out the location of the state land space by one of the drawings, and the area, the owner, buildings and property information based on the use of LIS to dispose criteria of the state land for the adoption of the Decision principle.

4.3.2 Business process design to dispose the state land

A business management of the state land occurs, typically, the subsequent sale of the business focused on incidents. Through establishing the periodic management planning, the transition, in addition, should be actively managing the state land.

The current work process demands for considering review of the target parcels hand to hand by the time and cost constraints. It causes that merely applied parcels of simple purchase underway a passive work process. Therefore, repeating the operation or management planning of the state land to need simulation is not completed yet.

State land parcels that are satisfied with several conditions such as spatial principle, time principle, attribute principle, or analysed current situation linked with registry information, building information based on cadastral spatial data could be operated a disposal process acceptance in the database of state land.

As items sold by each of the 28 conditions of disposition are verified all by multiple cases, it is possible to find the satisfied conditions for the disposal parcels. In addition to, there have been many cases of more urgent to dispose the sale satisfied multiple conditions simultaneously.

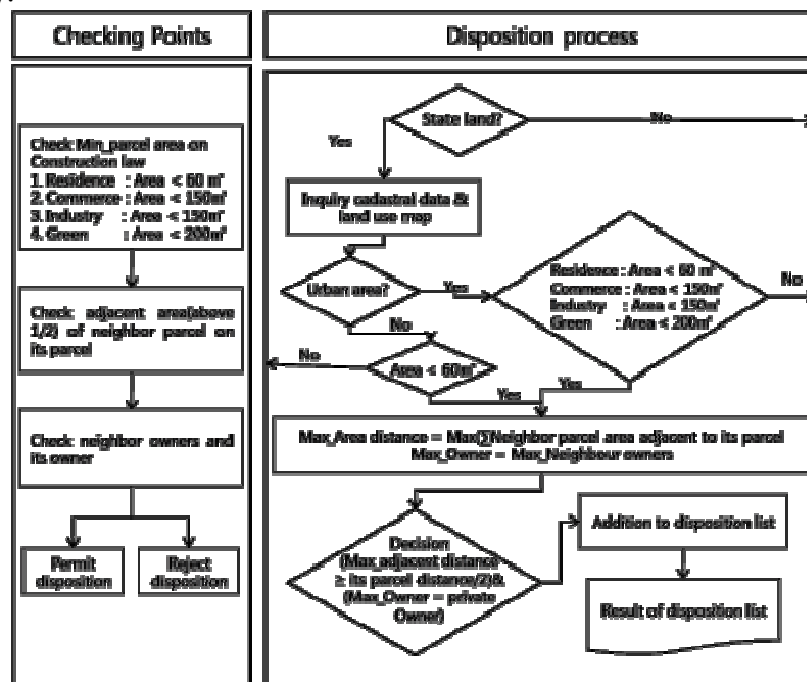


Figure 5. Disposition process using cadastral spatial data

Figure 5 shows more detail disposition process using cadastral spatial data. If organizations for managing state land can use this process, it can be able to positive principle for deciding annual disposition priority when they establish the long-term planning of the state land according to the number of those satisfied with the disposal decision.

According to the annual plan, the parcel that is not necessary to sell can be broadly utilized practical use such as lease or limited use until they can be deployed.

5. CONCLUSION

This paper is focused on the design of the disposition process of the state land based on cadastral spatial information using the concept of BPM.

Recent information technology infrastructure has been growing the new technology of efficient business process management that support integration between organizations based on ICT environments.

However, the current task of the state land management is not only scattered in various organizations but also not adequately responding to new social trends because of the lack of staff's ability and complexity of work process.

In particular, disposition process among tasks of the state land management and its contents are not efficiently defined. Thus it takes too much time to collect target objects to dispose the state land, or some cases are not possible to yield those objects within the current environment.

Therefore, the organizations to take charge of the state land can provide better service to the customers, reduce cost and human resources as well as work processing time if they introduce a business process management based on LIS for effective operation with standard principle of disposition objects.

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