

Systems of Land Survey and Registration in China

The cadastral administration is the basis of land administration, which is a series of working measures systems conducted by the State for the purpose of carrying out the effective land administration, through survey on complete natural and economic conditions of the land, accordingly to establish the cadastral maps and lists etc. The key items of cadastral administration include land survey, land registration, land statistics, cadastral file management and cadastral information system etc, in which land survey and registration are basic assignments.

The land survey and registration have experienced for over 5,000 years in China. As early as the times of Yu in the Xia Dynasty 2183-2177 BC, the sort survey was carried out for land by dividing it into three classes and nine grades, and taxes were collected base on that. And, in the Zhou Dynasty 1066-256 BC, there was a record of land measure with “Lian” as the length unit, and the register in detailed lists was made. The large scale of household register and cadastral checks were conducted after Qinshihuang, the first emperor in history of China, reunified China in 221 BC. In the middle period of the Tang Dynasty (8th century), the nationwide land survey was carried out for the purpose of promoting “double-tax method” (household tax and land tax). The more extensive land survey (land measure) was conducted in the Song Dynasty (1644-1279 AD). Up to the early period of the Ming Dynasty (after 1368 AD), it appeared the land register list, namely Yulin Register, and the nationwide general land survey (Called Wanli Measure) of the whole country was carried out during the period of Wanli (title of the Shen Zong's reign in Ming Dynasty). In Qing Dynasty (1644-1911 AD), the “Cadastré Brought to Household” appeared and had with the embryo of the modern land survey and registration. After the year of 1911, the government of the Republic of China officially promulgated the “Rules for Registration of Real Property” in 1922, and the developments were made for cadastral arrangement and six items of land survey including land property, land distribution, land use, land operation, land tax and other levies as well as special investigation etc.

From establishment of the People’s Republic of China in 1949 up to the year of 1978, the works had been development successively in China, including land reform (such as land measure, delimitation and certificate grant), farmland checks and productivity determination (such as register establishment, numerical statement and report system) and urban land registration etc. After China reform and opening to the outside world in 1978, especially the promulgation of the “The Law of the People’s Republic of China on Land administration” in 1986, with the soil general survey (1979-1981), land-use situation survey (1980-1981), land inventory (1984-1996), and land register of urban and rural etc, the land survey and registration have been put on a scientific developing track in China, and it has been established for systems of land survey and registration with Chinese characteristics.

I . System of land survey

The purpose of land survey is to make a thorough investigation of the land concerning quantity, quality, distribution, utilization and ownership conditions. The accurate data and information of land survey is the preconditions to properly identify the national conditions and powers of the land, and also the basis on formulating the scientific land policies.

The land survey is a legal responsibilities and obligations of administrative departments in charge of land at each level. The provision is laid down in Article 27 of “The Law of the People’s Republic of China on Land administration”, which is that “The system of land survey shall be established in the country. The land survey shall be carried out by administrative departments in charge of land under the people’s government at over county level, jointly with other departments concerned at the same level. The landowners or users shall give the coordination to the survey, and provide the related information and data.”

In “Enforcement Regulations on the Law of the People’s Republic of China on Land administration”, the further definite provisions have been provided on items of land survey including three aspects of land ownership, land conditions and current situations of land utilization. In addition, the provisions have also been made that results of land survey concerning current situations of local land utilization shall make known to the public through check of the people’s government at this level, and after approval of the people’s government at the higher level. For results of nationwide land survey, it shall make known to the public after approval of the State Council. The rules and regulations of land survey shall be formulated **by administrative department in charge of land under the State Council, jointly with other departments concerned** at the same level.

In recent years, the legislation has constantly enhanced for system of land survey in China. The provision is laid down in Article 27 of “The Law of the People’s Republic of China on Land administration” that “The system of land survey shall be established in the country”. It is that the position of land survey has been established in form of the law. Meanwhile, survey and statistics of land variation must be strengthened and normalized, in order to act in the spirit of the central government about reinforcing land administration and practically protecting cultivated land, and meet the new requirements for land administration under new situations of market economy. Accordingly, in “Enforcement Regulations on the Law of the People’s Republic of China on Land administration” the definite provisions have been laid down that “The land survey shall be carried out by administrative departments in charge of land under the people’s government at over county level, jointly with other departments concerned at the same level”; “The programs of statistics and survey shall be formulated by administrative departments in charge of land under the people’s government at over county level, jointly with statistical department at the same level. The land statistics shall be carried out according to law, and the statistic information shall be publicized at regular intervals”. The correlative laws and regulations of land are not more, but the preliminary framework has been established for law system of survey and statistics of land variation, and national daily land survey system.

In China, the land survey mainly includes survey of land use situations, survey of land utilization variations, town cadastral inventory, land quality survey and dynamic monitoring of land use etc.

(1) Survey of land utilization situations

For nationwide survey of land utilization situations started in 1984 and ended in 1998, the investments are unprecedented in manpower, material resources, financial power and time etc., and also a large-scale detail one with a plan, purpose and organization. Through this survey, the comprehensive thorough investigation has been carried out for land conditions of the whole country with Oct.31, 1996 as standard date, including land type, quantity, quality, distribution, ownership and utilization etc. The achievement has been made on

the most ever accurate, comprehensive and authoritative land data in all categories. The promotion has been done for construction of land exploration administrations and survey teams. And, the acceleration has been made for development of science and technology of land resource survey. The valuable experiences and great successes have been gained in survey organization, team construction, data processing, development and management etc. through this survey, and the solid foundation has been laid on establishment of land survey system.

The unified classification of the whole country has been achieved in this survey. The classification system consists of two levels: first level in 8 classes, and second level in 46 classes as listed in Table 1.

Table 1 Land Use Situation Classification

First level		Second level		First level		Second level	
Code	Designation	Code.	Designation	Code	Designation	Code	Designation
1	Cultivated lands	11	Irrigated paddy field	6	Transportion	61	Railway
		12	Land based on the weather			62	Road
		13	Irrigated field			63	Rural road
		14	Dry land			64	Civil airport
		15	Vegetable plot			65	Dock and harbor
2	Garden plots	21	Fruit	7	Water fields	71	Water surface of river
		22	Mulberry			72	Water surface of lake
		23	Tee			73	Water surface of reservoir
		24	Rubber			74	Water surface of pit and pool
		25	Others			75	Reed bed
3	Forest lands	31	Forest	8	Un-utilized lands	76	Tidal flat
		32	Shrubbery			77	Channel
		33	Open forest			78	Hydraulic structure
		34	Un-formation of forest Planting site			79	Glacier and perpetual snow
		35	Obsolete site			81	Wasteland
		36	Nursery			82	Alkaline land
4	Grass lands	41	Native pasture	83	Wetland		
		42	Improved grassland	84	Sand		
		43	Artificial pasture	85	Bare soil		
5	Lands for residence, industry and mining	51	City and town	86	Bare rock gravel land		
		52	Rural residence	87	Raised path		
		53	Industry and mining only	88	Others		
		54	Salt pan				
		55	Special use				

The aerial photo and topographic map are used for this survey. It has been made for achievements such as land data in all categories, maps or drawings with general scale 1:10000 and written reports etc. through processes of indoor pre-determination, field annotation, additional field measurement, indoor transfer of aerial photo, measure of area, interpretation of result, inspection and acceptance and summary etc.

(2) Survey of land utilization variations

Since 1996, on the basis above the survey, it has been developed for survey of land utilization variations in China. The field survey is carried out for annual variation information of current land utilization, and achieving accurate statistics, scientific summary and timely modification in order to maintain the feasibility and objectivity of the survey data. The data of land variation survey is publicized by the State each year as the legal data of current land utilization situations.

(3) Cadastral inventory

The purpose of cadastral inventory is to make a thorough investigation of basic situations to each parcel such as distribution, ownership, limit line, quantity and use etc. by means of scientific method and based on related legal procedures through land ownership survey and cadastral survey. The results are indicated with maps and records. Then, the land registration is carried out based on this.

The cadastral inventory is a basic work of land survey mainly relying on ownership survey, which is divided into initial and conversional cadastral inventories according to different periods and tasks, and also into rural and urban cadastral inventory according to different regions and functions. The key items of cadastral inventory can be generalized for land ownership survey and cadastral survey. The land ownership survey is mainly to provide the base map and basis for the cadastral survey, by demarcating location of cadastral parcel limit at site, mapping out the parcel sketch, investigating the land use and filling out the table through survey of limit line about parcel ownership and other rights and interests. On foundation of land ownership survey, the cadastral survey is to provide the basics data for land registration by scientifically surveying the ownership limit, location, shape and land boundary for each parcel in certain area with the aid of surveying instruments, and calculating its area and drafting out the cadastral map.

Starting from Sep.1989, the initial cadastral inventory has been disposed in China, which administrative departments in charge of land at city, county and district levels were responsible for the implementation. Up to Oct.31, 2002, totally over 24,200 square km of areas have been completed in nationwide urban cadastral inventory, meanwhile 45,160 square km in rural cadastral inventory.

Through the cadastral inventory, the urban land resource has been checked up to offer the basis on reasonably utilizing the land and formulating the macro readjustment and control policies of the land, and also laying solid foundations on scientific land administration. A lot of disputes in land ownership have been settled in favor of protecting the legal rights and interests of land property owner and upholding the social stability.

The information of cadastral inventory is very valuable results. The information systems of cadastral administration have been established in many districts, cities and counties on the basis of results of cadastral inventory for the convenient of result applications. Currently, the results of cadastral inventory

have been extensively applied to various operations of administrative departments in charge of land, to provide detail and accurate land data and maps for the governments at all levels in formulating the national economic plan. In addition, it has been widely utilized by the departments such as taxation affairs, public security, fire fighting, urban planning, tap water and gas supplies administrations etc.

(4) Special land survey

The land survey for special purpose is called special land survey for example, land condition survey. The land condition survey is a special one carried out for the purpose of finding out the land quality and distribution, with key items including soil, vegetation, landform, meteorology and hydrology etc. as well as natural conditions of land and social economic conditions such as investment, output, transportation and locations etc. For cultivated land reserves survey, and evaluation of land resource survey in western regions being developed at present, it is that the special land condition survey according to special demands.

(5) Dynamic monitoring of land use

With rapid and timely features of remote sensing monitoring, the dynamic monitoring of land utilization has been carried out for cities with population over 500,000 and special districts all over the country every year since 1999.

The land survey institutions and teams have grown steadily from small to big during the process of nearly 20 years. It has been gradually established for survey institutions, technical teams and monitoring networks with 5 levels spreading all over the country from the State to provinces, cities, counties and townships. The application of traditional survey and advanced “3S” technologies has gradually reached maturity in land survey. The respective standards, technical regulations and quality control system have been progressively improved, all of which offer the safeguard in team and technology for establishment of land survey system. At present, the systems of variation survey and remote sensing survey for land have been established, and become the important fundamental works for land administration. It is gradually established and developed for system of land use survey mainly relying on annual land use variation survey, dynamic remote sensing monitoring survey and construction of data base of national land utilization.

In the past 20 years, the system of land survey has been established and improved gradually in China. The results of land survey play a very important role in aspects of the administration of national land resources and the development of national economic construction. Firstly, to provide the support for national land resources management. For instance, land variation survey carried out every year is to implement a thorough investigation for land use conditions and changes, especially for situations of cultivated lands occupied by building constructions. The data obtained from land survey has been extensively applied to draw up and revise a master plan of land utilization, and delimit the protection areas of prime farmland, and formulate the planning of land development and preparation. According to results from evaluation of cultivated land reserves survey, Ministry of Land and Resources has formulated the planning of land development/preparation and reclamation bases at the State level as well as western ecological de-farming. The system of land survey has become the powerful safeguard for administrative operations of national land and resources such as control of land use, cultivated land protection, master plan of land use and revision, land examination and approval, registration and certificate grant, land development/preparation

and reclamation, land law execution and supervision etc. Secondly, to provide the support for economic construction and macro control. The Ministry of Land and Resources, National Bureau of Statistics and Office of National Agricultural Inventory jointly publicized the survey results of land utilization situations as the national legal data in 1999. For ensuring the practicability of the result, the State Council asks to launch the land variation survey and update the results for survey of land utilization situations in the whole country, and report to the State Council for situations including land use changes, land development/preparation and reclamation, agricultural structure adjustment and ecological de-farming etc. The data of land variation survey, as the important basic one of national economic construction, and also is the foundation for the central government to formulate the national economic plan, social development plan, national land planning and related policies and make the scientific decisions. It has supplied the basic information for the central government and administrative authorities concerned to effectively monitor the integral operation of national economy and fend off the financial risk, and played the role of decision-making support in plan formulation of related authorities such as national planning, financial, agricultural, water Resources, forestry and statistics etc. Thirdly, to provide the supports for protection of land property right and service for construction of land market. The urban/touw cadastra survey has offered the reliable basic data for establishing clear system of land property right, and remuneratively granting and transferring the state-owned land. Simultaneously, through rural cadastra survey, the plentiful disputes and conflicts in land ownership have been settled to protect the immediate interests of the farmers and create the conditions for transfer of farmland and construction of rural land market. Fourthly, to provide the support for achievement of sustainable development strategy. With various comprehensive and special land surveys spreading all over the country, the central government and administrative authorities concerned can timely and accurately keep abreast of current situations and the latest variations of land utilization, and basic information of prime farmland, cultivated land and hillside cultivated land etc., and duly make it known to the public. The important safeguard has been provided for launch the education of national conditions, national policy and national law about land resources to the whole society, which is favorable to protect the cultivated land according to law, ensure the implementation of basic state policies of “Sufficiently treasure and reasonably utilize each inch of land, Practically protect cultivated land” and safeguard the execution of national grain security and sustainable development strategy under purpose of achieving coordinated development of economic construction and ecological environment protection

II . System of land registration

Land registration is a system of the State to implement detailed lists and grants certificate for land rights and interests according to laws. The modern land registration system of China was established at the end of 1980's last century. According to legal procedures, the State records in books for keeping account of state-owned land use-right, collective land ownership, collective-owned land use-right, other land rights and interests and its variations. Through efforts of over 20 years, the land registration system has been established and completed fundamentally in China, through which land property right has been cleared out to protect the legal rights and interests of land obligee; the plentiful disputes have been settled to uphold the social stability; and property right information with public credibility has been offered for land market to safeguard the land transaction safety and promote the social economic development.

(1) Laws and regulations concerning land registration

The socialist public land ownership has been defined in the “Constitution of the People’s Republic of China”, that is, the state-owned land and collective-owned land. The National People’s Congress and its Standing Committee has successively promulgated several laws including “Law of Land Administration”, “Administrative Law of Urban Real Estate” and “Guarantee Law” etc., in which provisions have been laid down for land ownership, land-use right, mortgage right, leasing right etc, and the land registration system has been established. Additionally, the publicity and consultation system of land registration information has been defined in “Enforcement Regulations on Law of Land Administration”.

In order to carry out the provisions laid down in laws of land registration, Ministry of Land and Resources and previous State Bureau of Land Administration have promulgated successively a series of department regulations and normative documentations such as “Regulations on Definition of Land Ownership and Use-right”, “Rules for Land Registration”, “Methods for Investigation and Settlement of Disputes in Land Ownership”, “Methods for Publicity and Consultation of Land Registration Information” and “Provisional Regulations on System for Occupational Qualifications of Agent of Land Registration” etc., which provides specific and operational basis for land registration.

(2) Items of land registration

The key items of land registration include land ownership nature and its source, land obligee concerned to land right subject, land location, boundary, area, purpose (land category), grade, price, drawing and land numbers concerned to land right object, and also term of land use for remised land-use right.

Land registration is divided into land registrations of the initial (general registration) and variation.

The initial land registration includes land registration application, cadastral survey, land ownership verification, registration, land certificate grant etc. The land registration application represents that land obligee makes an application for registration to administrative authority concerned according to regulations, by indicating the conditions of his/her land right, and submitting the related certificates; the cadastral survey represents that administrative authority in charge of land registration carries out the field survey, verification, measure, delimitation and map making etc. for the land to be registered, in order to identify the situations concerning location, ownership, limit line, area, purpose of the cadastral parcel and land obligee; the land ownership verification refers to the procedures carried by administrative authority in charge of land registration by verifying the -use right, ownership and other rights and interests of the land to be registered according to application form, ownership certificates submitted by the applicant, and results of cadastral survey; the registration represents that administrative authority in charge of land registration records the legal items of land registration in the land register card. The land certificate can be granted after completion of registration.

After completion of initial registration, the procedure of land variation registration shall be gone through for each parcel if changing the ownership and purpose of land. Normally, this variational registration also includes application, cadastral survey, verification, registration and certificate grant etc.

(3) Characteristics of land registration

The land registration system of China has both features with right registration and **Torons(托伦斯)**

registration system, emphasis on the former. It features of:

1. The land right variation (acquisition, variation and loss of land ownership, use-right and other land rights) can have the legal effect only after registered in administrative authority in charge of land registration.
2. For registration application submitted by the registration obligor, the administrative authority in charge of land registration checks that the application meets the requirements of necessary format elements, but also essentially checks that the right or right variation to be registered by application meets the provisions laid down in related national laws and regulations.
3. The land right shall have the legal effect upon registration.
4. Except for property right of state-owned land, all land rights shall go through the initial land registration. After that, the variation registration must be followed if with land right variation.
5. The land registration book of China has been arranged according to orders of cadastral parcel numbers.
6. After recording land right and its variations in registration book, the administrative authority in charge of land registration shall grant a certificate to the land obligee as legal evidence holding this land right.

(4) Others concerning land registration

In order to protect the right of land obligee and give full play to effectiveness of land registration, many relevant systems have been established in China.

1. Publicity and consultation system of land registration information

By promulgating “Methods for Publicity and Consultation of Land Registration Information” in form of Order No.14, Ministry of Land and Resources has launched test- works for publicity and consultation of land registration information all over the country. Based on above works, all of these measures have delimited the land registration information and its consultation, and clearly defined consultation institutions, process and condition of consultation and its result certification etc. According to the statistics, there are totally 3,026 units to develop the publicity and consultation of land registration information, and provide 5.71 million consultations.

2. System for occupational qualifications of land registration agent.

With establishment and improvement of market economic system and continuously development of various reforms, due to frequent land transactions and heavy work of land variation registrations, the demand has become increasingly urgent for clarification of land property right and management of land registration by the land obligee. It is difficult for them to make a good grasp of related policies and legal regulations owing to higher policy comprehension and rigorous legal procedures together with plentiful consumption of time and vigor. Therefore, an attempt has been made for land registration agent in some regions with reference to practices in the developed countries of market economy, in order to meet the requirement of social and economic development.

In 1996, for the purpose of normalizing the land market and meet the requirement of social demand for land registration under new situations, the original State Bureau of Land Administration decided to carry out the pilots of land registration agent within certain range of the whole country, and promulgated “Trial Methods for Pilot of Land Registration Agent”. After this work, this industry has grown steadily from

small scale and a little of the employed to the trend of specialization, and spreading from coastal economic developed areas to all over the country. The presence of land registration agent has met the requirement of sound development of land market, settled the problems of long duration, great vigor consumption and higher cost owing that the land obligee cannot make good grasp of related policies and legal regulations, which is well received by the consigners.

In order to normalize the actions of agent industry, on foundation of pilots and practices of land registration agent, the Ministry of Personnel and Ministry of Land and Resource jointly promulgated “Provisional Regulations on System for Occupational Qualifications of Agent of Land Registration” and “Enforcement Methods for Examination of Occupational Qualifications of Agent of Land Registration ” in Dec. 2002 through deep researches and discussions, which is a mark for establishing the system of occupational qualifications of land registration agent in China.

Through nationwide examination of occupational qualification in 2004 and 2005, there are 6,527 persons holding the occupational qualification of agent in the whole country. The qualified agents will provide support and safeguard for developing and improving the land market, normalizing the actions of land registration agent, maintaining the legal rights and interests of land obligee and offering high-efficient and safety medium services for the society.

3. Normalized establishment of land registration

The system post with certificate has been carried out for staffs of land registration. According to requirements specified by Ministry of Land and Resources, the staff involving in land registration must obtain the qualification certificate granted by the Ministry and through confirmation of the employing unit. The documents of land registration can be effective only by signature of the person on the job post. At present, there are totally 33,745 persons holding the post qualification of land registration. The theoretical levels and professional qualities of land registrants have improved through training.

Starting from 1987, the work of issuing land registration certificate has been developed overall in China. At present, the institutionalization has been formed in registrations of the state-owned and collective-owned lands use-rights respectively in urban and rural areas. The initial land registration has been basically completed for state-owned and collective-owned lands use-rights in the whole country. The rate of certificate grant reaches to 76% for state-owned land use-right, and 71% for collective-owned land use-right (in which 72% for rural housing land). The registration and certificate grant have been gradually developed for rural collective-owned land ownership in the whole country, with rate of certificate grant 48%. The land variation registration has been strengthened with coordination of variation and registration fundamentally achieved.

The land registration of housing land has been developed in city and town, which is an important item of land registration, and is a lawful action to define the use-right of housing land and safeguard the legal rights and interests of land for house purchasers. After “Law of Land Administration” promulgated in 1986, the original State Bureau of Land Administration has organized to launch the land registration including land use-right and house ownership for housing lands in cities and towns of the whole country. In 1995, “Administrative Law of Urban Real Estate” was publicized and executed, in which stipulates that the State implements the system of registration and certificate grant for land use-right and house ownership, and

specific provisions have been laid down for registration of housing land. During this period, the registration of housing land is mainly on the public housing of units. With reform of housing system continuously deepened in city and town, the emphasis of housing land registration has been transferred to land uses of commercial house, economy house and reform house purchased by the individuals.

There are some problems in housing land registration with increment of houses purchased by the individuals. The house purchasers have not registered their housing land due to lack of consciousness. secondly, the development of housing land registration and issuing is unbalance, it exists slower progress in some regions. Aiming at problems in housing land registration and certificate grant, Ministry of Land and Resources has successively promulgated several documents such as “Circular on Well Management of Current Land registration and Cadastral Inventory” and “Circular on Further Acceleration of Housing land Registration and certificate Grant in City and Town”, in which dispositions have been made to reinforce the housing land registration and certificate grant in city and town.