

# Planning Practicum-Based on Sustainable Development

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Land use is one of the biggest issues of urbanization. With the advancement of technology and the development of economy, the level of urbanization has constantly improved. At the meanwhile, the land utilization is changing: the agricultural land is keeping being taken; contradiction between supply and demand of land is increasing, etc., which limit the development of city. As the lack of understanding of urbanization, blind development wasted land resources, damaged the environment and blocked the economic growth of city.

Therefore, as a planner, we need find a way to ensure urbanization is rational, such as optimize the development pattern of city, use the land in a sustainable way, etc. Nowadays, optimal and intensive land use has gradually become a national strategy. Ministry of Land and Resources makes requirement of optimal and intensive land use strategy in regulation or normative documents. In that case, The optimal and intensive land use strategy is for obtaining the economical and intensive utilization status of construction land; researching the potential of land use, spatial distribution and variation tendency; offering the land utilization proposal of excavating the potential value, adjusting structure, and optimizing layout; becoming the important basis of land use management to promote land use efficiency.

As an employee of CLSPI with urban planning background, I will express my thinking of conflict between urbanization and land utilization, the relation of urban evaluation and optimal and intensive land use. Furthermore, I will propose some suggestions in my aspect.

**Key words:** land use, urbanization, evaluation, conflict, suggestion

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The Sustainable Development Theory is that developing which could not only satisfy the demand of modern people, but also not endanger the ability of futurity's need.

## **1. THE ORIGIN OF SUSTAINABLE DEVELOPMENT AND ITS REFORM.**

The Sustainable Development theory has experienced for a long historical process. Nineteen fifties to sixties, under the pressure of the economic growth, urbanization, population growth, and the decline of the resources, people began to suspect the idea of increase equal to development and people argued about that with each other.

In 1962s, an American biologist Rachel Carson published an environmental science masterpiece named "Silent Spring" which caused a sensation. The author described the terrible scene which caused by agricultural chemical pollution. The core idea of the silent spring is that people realized they had already lost the beautiful spring, and it caused the argument about the development concept among the world. Ten years later, two famous American scholars Barbara Ward and Rene Dubos wrote the only one earth. That combined the survival of man and the knowledge of the environment, put human cognition on the "Sustainable Development" level. At the same year, an informal international organization named Club of Rome published the famous research report The Limits to Growth. The report gave two clear concepts "Sustainable Growth" and "Rational, Abiding Balanced Development". In 1987s, the United Nations and Environment and Development Committee published a report named Our Common Future which officially proposed the concept and pattern of "Sustainable Development". These two concepts were focused by government all over the world

## **2. SEVERAL MEAN TYPES OF SUSTAINABLE DEVELOPMENT**

As all the economic theories, the theory of Sustainable Development has several different sects. Some of the sects focused some specific problems; others emphasized different properties during the process of sustainable development.

### **(1) Focused on natural attribute definition**

Durative, so called ecological sustainability was mentioned by ecologist in early time. Specifically, it represented the balance of natural resources and development. In November of 1991, International Association of Ecology and International Union of Biological Sciences held a meeting of special topic: Sustainable Development. The proseminar developed the natural attribute of the sustainable development and defined the sustainable development as: protect and strengthen the ability of environmental system's production and update. Defining

sustainable development from the ecosphere's aspect is the symbol of natural attribute aspect which means sustainable development was the best way of seeking ecology integrity.

## **(2) Focused on social attributes definition**

In 1991, International Union for the Conservation of Nature, United Nations Environment Programme, and World Wildlife Fund issued a joint statement “Caring For the Earth: A Strategy For Sustainable Living”. It defined sustainable development as: to improve the quality of human life in the cases of the carrying capacity of maintaining ecosystem may not be exceeded when people's living. In addition, it emphasized the nine basic principles which could not only focus on the balance of the earth's carrying capacity and human's lifestyle and mode of production, but also protect the species diversity. At the same time, they mentioned the sustainable development's sense of worth and 130 action plans which stress the sustainable development based on the human society. In other words, the sustainable development was for improving the quality of human life and creating wonderful life environment. The book said, all the countries should constitute own development goals based on national conditions.

## **(3) Focused on economic attribute definition**

The scientific experts Edward B. Barbier defined sustainable development as based on maintaining natural resources' quality and services, increasing the net benefit to gain the maximum profit. Some scholars pointed out that sustainable development was that today's resources using should not reduce the future's real income.

## **(4) Focused on science and technology attribute definition**

The implementation of sustainable development not only needs policy support of government, but also needs advanced technology. Without the technology support, we cannot even start talking about sustainable development. In that case, some scholars defined sustainable development in terms of technology: The sustainable development is cleaner, more efficient technology, and as close as possible “zero release”, reduce the energy consumption. They also thought, pollution is not the inevitable result of industrial activities, but the performance of poor technology and low efficiency.

## **(5) Definition which widely accepted by international community**

1981s, Brundland report defined the sustainable development from Our Common Future, “Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs.” It contains within two key concepts: needs, in particular the essential needs of the world's poor, to which overriding priority should be given; limitations, imposed by the state of technology and social organization on the environment's ability to meet present and future needs.

### **3. THE CONNOTATION OF SUSTAINABLE DEVELOPMENT.**

#### **(1) Common development.**

In my opinion, the whole earth is a giant system, every country or area is subsystem. The fundamental characteristic of the system is integrity which means every subsystem has connections with other subsystem. If only one system has problem, it would cause other system's disorder, even would cause the whole system's change. In that case, the sustainable development is integral development, common development.

#### **(2) Coordinated development**

Coordinated development not only includes integral coordination of economy, society and environment, but also includes regional distribution of the economy, population, resources, and all orders of society.

#### **(3) Fair development**

The worldwide economic development has hierarchy because level difference. However, we should not let hierarchy aggravate by unfair actions. I believe the fair development should include two aspects: time, the modern people's development should not harm future generations' development; space, none of the countries or areas could develop by harming other countries or areas.

#### **(4) Efficient development**

In my opinion, the efficiency of sustainable development is not economic efficiency, because the former one not only includes economic efficiency, but also includes environmental resources. In that case, efficient development represents the development of economy, society, resources, environment, and population.

#### **(5) Multidimensional development**

The development of the human society shows globalization. However, different countries or areas has different levels of development, specifically, different countries or areas has own culture, system, geographical conditions, and international environment, etc. In that case, sustainable development is also a comprehensive, global concept which needs to consider the acceptability of different entities.

### **4. THE CONSTRUCTION OF SUSTAINABLE DEVELOPMENT ABILITY**

If economy, population, resource, and environment, etc. constitute the target system of sustainable development; management, legality, science, technology, and education, etc. will be the support system of sustainable development.

### **(1) Management system**

The sustainable development needs an effective management system. According to history and reality, the wrong policy decision and management could cause environment and development inharmonious. In that case, it is quite important for sustainable development to improve the decision and management ability. Sustainable development's management system requires government train high quality decision makers or administrators, make them use planning, legality, administration, economy, etc. build the organization structure of sustainable development.

### **(2) Legal system**

The legislation is the guarantee of sustainable development. In that case, establishing legal system of sustainable development is the important aspect of the construction of sustainable development ability, because sustainable development could ensure the rational use of natural resources, control ecological damage and environment pollution; also ensure the development of economy, society, and ecology by legal system.

### **(3) Science and technology system**

For Achieving sustainable development, it cannot live without the support of advanced technology. In my opinion, the advanced technology could provide specific data or evidence for sustainable development which could promote level of management, expand the supply, increase resource utilization rate and control environment pollution, etc.

### **(4) Education system**

Sustainable development requires people have high level of knowledge and moral level. People need to know what consequences of their today's activities are; they need to realize the responsibility for children and grandchildren; they need to sacrifice immediate interests and partial and local interests. The education system of sustainable development could not only make people have the relevant knowledge, but also let people reach the moral level of the sustainable development.

### **(5) Participation**

The goals or actions of sustainable development need public participation. Specifically, sustainable development needs approve, support and participate from public or social group. The extent of participation will decide the process of development goal. The participation should be comprehensive, which means public should participate in all the process of sustainable development.

In my opinion, protecting city's natural ecological environment and resources is the foundation of people's permanent living. It is the bounden duty and obligation of the citizens; it is also the most important task of urban planning and constructing. Only combine the consciousness of ecological protection and urban planning could lay the foundations for city's sustainable

development. The concept of “Ecocity” was first presented by Education Scientific and Cultural Organization in nineteen seventies. In 1986s, Yichun province, Jiangxi city summarized several classic example (ecological village, ecological farm, ecological county), and mentioned development plan of ecocity. At the beginning of 1988, initial priority was placed on Jiangxi which was the first step of ecocity in China.

In terms of explorations and practices in China, ecocity’s basic connotation should be: unified planning and comprehensive construction in a certain area that specialized in ecological environment construction and socioeconomic development; abide by the principle of ecology and ecological economic law; combine the regional ecological construction, environmental protection, rational use of natural resources, ecological restoration, socioeconomic development and urban planning; and making blue sky, clear water, green land ecolandscape; guide integral, harmonious, self-reliable and open ecological civilization; hatch economic efficiency, harmonious environment, social applicative ecological industry; build ecological community of harmonious coexistence of man and nature; finally actualized the high integration of regional economic benefits, social benefits, and ecological benefits.

Traditional Chinese people believe in oneness and advocate holism. Taoist school proposed “Man takes Earth as his model; Earth takes Heaven as its model; Heaven takes Tao as its model; The Tao takes what is natural as its model.” The Confucian school proposed “monarch must observe the operation rules of nature, find out the time sequence of farming, fishing and hunting, and understand human ethics order. All of these are for setting the standards for people, finally for unification of the whole world.” So we should set up such an idea that all natural things are good. Since we are children of nature, many things are easy for us to learn well only if we exert our connate functions. All of those thought represented ancestors’ hope which is unity of man and nature in harmony. In terms of urban planner, we should locate city’s function accurately, make sure keep resource sharing and have complementary advantages. The urban planning for cities, especially for zoning, planners should well organize residential area, commercial area and industrial area; protect rivers, lakes, sea, mountains, gardens, forests, and trees; Urban planning should focus on fusion of building and environment, and take full advantage of original topographic feature and natural landscape. Urban planning should avoid overcrowding, artificial landscaping replace natural landscape.

Urban planning should contain harmonious, inseparable aesthetics conception between human being and nature; it also should have assessment measures. Urban planner needs consider environmental factors, such as sunlight, wind; inspect integrity of project and surrounding. Traffic and transportation planning should consider the present situation and future development need. When government formulates traffic regulations, urban planner must evaluate environmental and economic factors which include environmental impact of transportation, saving energy and reducing consumption, and pollution reduction. At the same time, government should promote the construction of information industry for improve the work efficiency. Infrastructures should also be improved, because infrastructures could ensure the urban function.

Government should consider natural circulation and utilization of water resource, and create attractive hydrophilic space. Establishing high effective emission control system which focuses on discharge rate, solid waste harmless treatment rate, waste gas treatment rate and noise rate, etc, is an important job for urban planner.

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