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## Ecological city and urban sustainable development

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### Abstract

Abstract: Sustainable development is a new concept of scientific development, sustainable development requires us to change not only the concept of economic development, but also requires us to change the concept of social development. Development of the city as a social development and economic development is an important embodiment of the process of sustainable development but also in pursuit of the concept of innovation. In this paper, the basic problem of the construction of ecological city, from the basic principles of eco-city construction, the city's main content and ecological function zoning. On this basis, the paper studied the ecological city and the relationship between sustainable development. Hope that through this research for ecological building and sustainable development of the city to provide a reference.

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*Key words:* eco-city, sustainable development, relationships, ecological and economic

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### 1. Introduction

For any one person, the ecological environment is very important, it can provide for human survival and development of material basis and the necessary variety of other conditions. Inappropriate if the ecological environment, human beings can not survive and develop. We can say that human existence and development, are dependent on a suitable environment. However, our economic and social development has already caused damage to the environment, but also gives us a threat to sustainable development. Our ecological environment of the city a very important part of its development and changes in the same human survival and development have a huge impact. The concept of eco-city came into being, it is affordable in the city within the ecological, the use of the principle of sustainable development and the basic principles of ecological economics, urban economic way of promoting change from the point of view, in order to improve the city environmental quality for the purpose of seizing the city's main line of

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the industrial structure adjustment of the layout to play the city's resources, through overall planning and promote the comprehensive development of the city's ability to achieve sustainable socio-economic development. In this paper, the construction of ecological city and sustainable development were studied.

### *1.1. Overview of Ecological City*

#### *1.2. The basic principles of construction of ecological city*

Files s From the present point of view, the main building of ecological city following aspects need to follow the principles of: Bulleted lists may be included and should look like this:

- the principle of sustainable development;
- people-oriented, the principles of harmonious development;
- economic, social and ecological benefits of coordinated development principles;
- both environmental protection and economic development principles;
- local conditions, highlighting the principle driving force of innovation;
- according to the development, the principle of overall planning;
- according to the development, the principle of overall planning;

#### *1.3. The basic elements of ecological city construction.*

Development of a city by the industrial engineering, agricultural engineering, forestry engineering, water conservancy, energy, engineering, tourism, landscape engineering, cultural engineering, environmental engineering, home construction and development capacity building project together. For the eco-city construction is concerned, it also works by some of the above constitutes an organic whole. But, in each specific projects, are required to reflect the eco-efficiency requirements, such as industrial engineering according to ecological principles, the use of circular economic theory, according to meet the design requirements of sustainable development; and energy projects, they are required according to the ecological economics, to establish clean energy projects, through the development of alternative energy and new energy to reduce energy consumption of the ecological damage to the environment; development capacity will have to reflect the sustainable development project, highlighting the development of capacity for sustainable development in the important position. Table 1. An example of a table

#### *1.4. Ecological function zoning of urban economy*

In general, the ecological city zoning in accordance with economic function, can be divided into the following areas:

(1) Human ecological zone, the region is mainly used to reflect the city's cultural connotation. Any city should have its own human-ecological zones, attention to the protection of historical and cultural heritage, through a variety of means to achieve a rich urban culture, the promotion of natural, historical and cultural landscape integration and sustainable use;

(2) Ecological Agriculture Development Area, the development of ecological agriculture in general are concentrated in the suburban area district, which is the human ecological regions outside the city part of the establishment of ecological agriculture development area on the one hand to ease the pressure on the urban environment, and promote the city's environmental balance and eliminate part of the urban pollution, on the other hand the development of ecological agriculture through urban areas to bring

economic growth, ecological agriculture;

(3) Ecological and economic coordination and development zones, ecological and economic coordination and development of regional economic development and cultural prosperity are second only to urban human-ecological zones in this area green coverage in general the larger, relatively well-developed industry and agriculture, all types of resources needed for economic development or economic factors of development in this region are relatively more concentrated. In this area, for ecological protection and development of both ecological and economic, not only the quality conditions of use of existing ecological and environmental protection-oriented, but also make good use of the radiation from the city center, promotion of eco-economic development;

(4) Cultivating ecological protection zone, which typically are environmentally sensitive areas in the city, is generally not high level of economic development, industrial structure is generally more traditional levels, coupled with low level of industrial concentration, infrastructure is relatively backward, and this part of the region does not advocate large-scale economic development, but rather as the cultivation area of ecological environment and improve the ecological capacity of the city as a whole.

## **2. urban ecological problems arising from**

### *2.1 Urbanization environmental problems caused by lack of awareness.*

The development of urbanization in China is a key feature of the late start, the starting point is low. This allows us to focus only on the previous economic construction productivity improvement, one-sided emphasis on yield and production value, while ignoring the environmental protection of urban planning and infrastructure construction. City dirty, chaotic, traffic jams prominent. Although with the economy, to our own quality of life are increasingly high requirements, the process of urbanization has gradually accelerated, ecological and environmental problems are also gaining increasing attention, but now for the protection of the environment, and efforts to control capital inputs are not enough, you can not fundamentally solve the problem of urban ecological environment.

### *2.2 Urban expansion pressure on the environment*

With the large number of rural population into cities, cities are unable to meet the functional needs of expanding population, rapid urbanization, industrial and agricultural development in the daily discharge of waste such as wastewater, waste gas, waste, noise and other cities far beyond the self-purification capacity of the environment can bear. Urban functions, changes in the structure of the flow also makes the city the growing population, and changes in consumer attitudes as people, people of the total demand for resources and products is also rising, but the already tense environment to bring greater pressure. Especially in the economic development of the situation also appears under the motor vehicle caused by a series of serious environmental consequences. In addition, the unlimited expansion of the city, or the serious waste of land resources and reduce the utilization of the land, so that greatly reduced the area of arable land, desertification has become increasingly prominent.

### *2.3 population growth environmental problems caused by*

As the population increases, the natural population demand for food have continued to increase, to meet this need, the blind expansion of areas planted numerous phenomena, which greatly exceeded the affordability of land resources available, but also by the natural environment to destruction. Second, the

population into the cities, housing is the most important issue must be addressed. Housing area increased, not only will develop a lot of land, increasing the burden on the land, while the development of the city to adapt to the changing needs, it must be increased in schools, hospitals and other public facilities investment. Population growth, the supply to the city in the material, social security, employment and energy consumption, transport, emissions and so bring a range of problems. In addition to the human itself, many people exhale carbon dioxide is also increased, to speed up the process of global warming.

### **3. Sustainable development and the relationship between ecological city construction**

#### *3.1 Resources, sustainable development and the relationship between ecological city construction*

Resources, eco-city construction of sustainable development is a very important element. The heart of the city as a region, but also the consumption of resources on site. In a city, not enough resources to support the supply of its consumption, in today's society, any resource consumption of a city far more than needed from the city's area to provide. This is the city's sustainable development, it is a very serious problem. Therefore, to set up eco-city, you need according to the requirements of sustainable development, re-planning and building the city's industrial structure, system, and to moderate the reduction of primary industry and the proportion of secondary industry, while promoting increased the proportion of tertiary industry . At the same time, but also continue to promote resource-saving and environment-friendly industries, and reduce resource consumption, reduce unit GDP resource consumption.

#### *3.2 Sustainable development and ecological relationship between urban construction*

The construction of ecological city in the meaning of questions is to promote sustainable economic development, and sustainable economic development capacity is also an important consideration in eco-city index. In the eco-city construction, to develop ecological agriculture, industry and services, to pursue economic development and economic benefits at the same time pay more attention to eco-efficiency, ecological benefits to economic development as an important objective. This is the economic requirements of sustainable development, and only pay attention to the ecological benefits of economic development in order to continuously improve the city's ecological carrying capacity, can ensure the sustainable economic development. Therefore, the construction of ecological city, to establish the concept of green GDP, the theory of circular economy should guide economic development, and actively explore the ecological and economic development of the new channel and new way.

#### *3.3 Sustainable development and ecological relationship between urban construction*

Cities are to a certain degree of social development product, eco-city is a necessary requirement for sustainable development of society. In the past few thousand years time, the development of human society is based on the cost of sacrificing the environment, including cities as the core of human society, more serious damage to the environment. However, this is not a social development approach to long-term sustainability, with the capacity of the environment more and more weak, the development of this predatory nearly come to an end. Zhezong trend can be effective if you do not change, then not only the survival and development of our future generations will be a serious threat to our survival and development of modern people are difficult to maintain. Eco-city construction, is to change this evil, the construction of ecological city not only to protect our survival and development of contemporary human rights, but also to ensure the future survival and development of human rights, that is to promote

sustainable social development. In turn, sustainable development of society is to ensure that the construction of ecological city, and only community to sustainable development and harmonious development of eco-city to reach the goal.

#### 4. Conclusion

Between human development and nature is a contradiction between a pair of very special in the past few thousand years, human survival and development are predatory. This trend intensified in the last hundred years, resulting in fewer and fewer of our mountains, and various forms of pollution are becoming more serious. However, the contradiction between man and nature are not irreconcilable, and human beings as a natural son, not only to realize that our current approach to development problems, better able to solve these problems. The construction of ecological city is a path to solve this problem, through the construction of ecological city, the development of the city implement the concept of sustainable development, to promote the ecological environment construction and repair, making the city's development in the pursuit of economic and social benefits can also pay more attention to eco-efficiency, to achieve social, economic and environmental sustainability, coordinated development, the true harmony between man and nature never were.

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