

ENVIRONMENTAL ISSUES AND CONCERNS FOR SMART CITY

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Abstract

Smart City is the use of information and communication technology to sense, analyze and integrate key information of the core system of urban operation, thus meeting various needs including people's livelihood, environmental protection, public safety, urban services, industrial and commercial activities. Make a smart response. Its essence is to use advanced information technology to realize the intelligent management and operation of the city, thereby creating a better life for the people in the city and promoting the harmonious and sustainable growth of the city. Smart cities are the ultimate development of modern cities. In the historical context of increased pressure on land use in modern cities and traffic congestion, developing smart cities is the best choice for solving these problems. However, the construction of smart cities itself is also facing many problems. This paper explores these issues and proposes corresponding solution.

Key words: *environment, environmental concerns, smart city*

The rapid economic development in the promotion of urban expansion has also led to “urban diseases” such as traffic congestion and environmental pollution, new ideas and new urban development models, promoting local expansion, finding the “best” of human intelligence, and smart cities. Construction has become a new development path for cities. In practice, with a profound economic background and a strong sense of the times and the development of a smart city, the construction of a smart city with the theme of “smart city” was first proposed at the 1990 San Francisco International Conference. In 1992, Singapore developed the IT2000-Smart Island program, which plans to establish a high-speed broadband multimedia network nationwide. In 2007, the EU proposed the idea of establishing a “smart city”. In 2008, IBM proposed a new concept of “smart earth.” In 2009, the EU once again raised the wisdom of urban construction and launched an investment plan. Since then, the construction of “smart cities” has become a hot spot abroad.

However, the irrationality of environmental planning work and the failure to fully pay attention to environmental issues during the process of urban construction and development are important causes of the growing urban environmental problems in China. Under the conditions of increasing urban environmental pollution and deterioration, Construction and urban environmental impact assessment issues are discussed.

Due to the existence of a series of environmental problems, in recent years, the Chinese people have gradually increased their attention to urban environmental construction and protection work, and on this basis, gradually explored the relationship between urban construction planning and urban construction and development, with the help of scientific urban planning. The program guides urban construction. Scientific urban planning program. It effectively overcomes the randomness and disorder of others cities in the past development process, and provides sufficient technical support for the good and orderly development of modern cities . As an important component of the urban construction planning plan,

the urban environmental protection plan can strictly follow the guidance information of the city's overall construction planning plan, the basic characteristics of the city, the scale, the development goal, and other aspects of the city's existing environment. Based on the systematic analysis of the current situation of the construction, the overall guidance plan for urban environmental protection construction work can be formulated to achieve the goal of protecting the basic living environment of urban citizens, reducing the level of urban environmental pollution intensity, and saving energy consumption levels during urban construction and development. From the analysis of the existing development stage, the implementation of urban environmental protection planning work mainly involves the following work.

1. Preliminary work of urban environmental protection planning and construction

This link is the basic link of the urban environmental protection planning and construction work. It is necessary to specifically investigate the development status of the city's basic construction based on the following specific aspects.

Research on the basic economic and social conditions of the city. The main focus is on the total number of permanent residents of the city, the number of floating population, the consumption structure of residents, and the value of urban GDP; Research on urban natural environment attribute data. Mainly concerned with the city's geographical location, climate characteristics, overall ecological environment, and geological and hydrological conditions; Survey of urban basic environmental building conditions. Mainly concerned about the changes in the performance of atmospheric pollution, water pollution, noise pollution and historical data within the urban space region, the source channels and historical values of major solid pollutants, the basic experience and historical process of urban pollution control.

2. Planning ideas for urban air pollution control work

Based on the existing quality status of the urban atmospheric environment and its development and evolution trends, the specific functional area structure planning is carried out, and on this basis, according to the environmental construction goals formulated in the overall urban development development plan, the calculation is obtained for each of the cities. The specific functional area can withstand the maximum emission of atmospheric pollutants, and formulate implementation plans for urban air pollution control work.

Based on the control of fossil energy consumption level to control urban air pollution, regional central heating heating mode should be widely implemented to minimize single-door chimneys, and efforts to strengthen air pollution control and pollution control Technological innovation work accelerates the construction of urban smoke-free control zones and promotes the effective improvement of urban air pollution prevention and control work.

3. Planning ideas for urban water pollution prevention and control work

Based on the practical basis of the investigation and analysis of the existing situation of urban water pollution, gradually implement the urban water pollution prevention and control implementation plan, and calculate the maximum water pollutant discharge that can be received by the target water body according to the environmental capacity parameter index of the water body. Based on the development of the optimal prevention and control work to form urban water pollution problems. In recent years, the water pollution levels of the seven major water systems in China

have continued to improve, and the main pollutants are organic chemicals. On the basis of analyzing the status quo of urban water pollution in China, the implementation of water pollution prevention and control work planning must gradually promote the reform of production methods, and gradually realize the technical development goals of cleaner production through the application of non-waste and less waste technologies. Reasonable application to improve the overall technical effectiveness of sewage treatment IT, and with the innovation of sewage treatment technology equipment, effectively reduce the scale of sewage discharge in China's industrial production activities. By continuously improving the processing technology level of industrial wastewater and domestic sewage, we can effectively improve the level of prevention and control of water pollution in China.

4. Urban solid pollutants treatment planning

In order to carry out remediation planning for solid pollutants in urban space, it is necessary to follow the overall planning objectives of urban environmental pollution control work, implement technical control indicators for comprehensive utilization of different types of solid pollutants, and formulate and implement urban solid pollutants. Governance work to carry out the program. At this stage, more and more cities in China are facing the problem of urban solid pollutants or waste disposal. Exploring the technical means to effectively deal with solid pollutants in urban space is important for improving the comprehensive implementation level of urban pollution control work. In the process of planning and designing urban solid pollutants, the protection of urban solid wastes should be focused on the economic affordability of the cities to be treated, and comprehensive treatment and application methods should be selected to maximize the extraction and use of useful components in urban solid pollutants. Reduce the consumption of materials and energy consumption during the development of urban development and construction. At the same time, in the process of treating toxic and harmful components in urban solid pollutants, thorough technical treatment methods such as incineration, biodegradation, and deep landfill should be used as much as possible to continuously improve urban solid pollutants. The level of implementation of the processing work.

5. Analysis of environmental impact effects after implementation of urban environmental protection planning

Analysis of groundwater environmental impact effects

From the perspective of supplementation, diameter and drainage of groundwater resources, atmospheric natural precipitation recharge and surface water recharge can be regarded as the main source of groundwater resources, and the main ways of excretion of groundwater resources are atmospheric evaporation effects and underground low-level seepage. 2 ways to achieve. Under normal circumstances, groundwater resources have shallow depth and strong penetrating power. Therefore, groundwater resources at the surface location are often more prone to pollution. Therefore, in the actual implementation of urban water body prevention and control work, it is necessary to gradually plan to form an appropriate area of groundwater resources protection zones, improve the implementation of urban water environment and ecological management, and promote the continuous improvement of the level of urban water environment and ecological construction.

Evaluation of soil environmental impact effects

From the perspective of urban planning and construction, the state of urban economic and social development and development, and the historical process of urbanization construction, the construction of residential areas, factory buildings and traffic road facilities on agricultural arable land, and the soil fertility status of agricultural lands The damage caused is irreversible. Under the conditions of actually completing the urban environmental protection work plan, it can promote most of the urban construction process under the condition that the characteristics of the construction land and the type of residential land are unchanged. The realization of the type of construction land has led to the gradual transformation of farmland land into residential land, industrial production land, transportation facilities land, and public construction land, etc., although the above-mentioned land resource type conversion work is irreversible for China's agricultural planting activities. Destructive, but under the conditions of fully respecting the guiding ideology of the basic government's basic land policy, it is necessary to take effective technical measures to prevent the construction of the construction area in the process of land transformation and application construction.

Pollution and destruction of land resources.

Environmental pollution and smart city construction affect each other. Environmental pollution problems will delay the construction progress of smart cities. If unreasonable behaviors in smart city construction will also cause environmental pollution problems, we must take care of both and control environmental pollution. It is to manage the existing environmental pollution problems and prevent more pollution.

Reference

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