

# Research on Environmental Protection in Urban Planning

Xiaolong Chen

Engineer, Harbin, Heilongjiang, China.

2859776942@qq.com

## Abstract

Urban planning is a long-term project and an important guarantee for promoting the future development of a city. To do a good job in environmental protection is not only to create a good living space for people, but also closely related to the social and economic development and construction. This paper discusses environmental protection in urban planning, analyzes water pollution, air pollution and solid waste pollution, strengthens the management efforts, improving air environment and scientific treatment of waste.

## Keywords

Urban Planning; Environmental Protection and Pollution Problems.

## 1. Introduction

Environmental protection is the key content of urban planning, which not only has a direct impact on the economic and culture of the whole city, but also is related to the degree of civilization and of the future economic development of the social organization structure. In recent years, the frequent environmental pollution problem has attracted wide public attention, and the concept of environmental protection has gradually penetrated into the development and construction of all walks of life. The in-depth study of the environmental protection problems existing in the urban planning aims to have an in-depth understanding of the diversified pollution problems, and actively explore and seek scientific solutions.

## 2. Environmental protection problems in urban planning

### 2.1. Water pollution problem

Water pollution problem is mainly divided into three sources in terms of water pollution. One is water pollution caused by factory drainage, the second is wastewater pollution caused by domestic water, the third is water pollution caused by the use of chemical fertilizer in agricultural production. The multi-source water pollution problem not only seriously affects and reduces the quality of the water bodies, but also pollutes and destroys the water bodies of Marine rivers, rivers and lakes to a large extent. Through analysis and research of relevant survey data, we can find that at least 1 00 million t of sewage from towns every day through the drainage pipe, and most urban reaches have obvious water pollution problems, leading that the river in many urban rivers cannot become a drinking water source. In the case of seriously polluted rivers and groundwater, many water sources are difficult for fish to survive, and cannot be used for irrigation of farmland. If ignore the treatment of water pollution, ignore the further strengthening of environmental protection implementation, will be bound to greatly increase the difficulty of water quality water management and protection in the future, leading to urban modernization and economic development is restricted and hindered by water resources problems, then will be more significant water shortage problem.

## 2.2. Air pollution problem

In recent years, the industrial industry has gradually accelerated with the help and support of science and technology, but it also includes more significant air pollution problems. Investigate the detection reports of atmospheric quality in China, find that atmospheric quality is undergoing gradual deterioration and rapid decline. Carbon dioxide, dust and fly dust are heavily emitted from the factory chimneys, and the car driving also produces exhaust gas. In areas such as urban gas stations, the evaporation of a small amount of gasoline will also release carcinogens and spread into the air. In the family life, it is also accompanied by the inevitable energy consumption, and the use of all kinds of sprays also brings a certain pollution to the air environment, resulting in the reduction of air quality. Relevant data on national air quality in China show that the air quality is generally not up to standard, PM2.5 representative air pollution serious threat and affects the health of the masses, the damage speed of roads, Bridges, buildings is greatly accelerated, for industrial production and agricultural negative impact cannot be ignored.

## 2.3. Pollution problem of solid waste

Industrial waste, hazardous waste and household waste all belong to the category of solid waste. The sparse management of such substances seriously damages and pollutes the ecological environment. Relevant data show that at present, the waste generated in China's industrial industry is far more than 6 00 million t, every year, and the proportion of hazardous waste is increasing year by year. If these industrial waste is landfill, the land needed is more than 5 00 million m<sup>2</sup>. Every year, as many as 1 00 million t of domestic garbage will be generated, leading to most Chinese cities surrounded by a huge amount of garbage, which seriously troubles and affects the production and life of the people.

## 3. Strategies for solving environmental protection problems in urban planning

### 3.1. Strengthen water pollution control efforts

Strengthen water pollution control and strengthen the sorting of water pollution problems. It is also necessary to conduct in-depth investigation and study the pollution situation of urban water bodies according to the specific situation of the location. In terms of river management, we should ensure that the current water quality is fully improved to meet the specific requirements of environmental protection, the investigation of pollution and pollution sources and polluted river and water bodies, which directly affects the daily life of the people, promote the steady implementation of sewage treatment projects, and further increase economic investment scale and strengthen management.

### 3.2. Improve the atmospheric environment

Observe the details of most urban environmental control in China, the backward combustion mode is the primary cause of air pollution. In daily life, automobile exhaust gas and coal are the main sources of pollution gas. Further analysis of air pollutants shows that it contains not only sulfur dioxide but also a large number of suspended particles. Overall planning of air pollution problems, first can be clear about the reduction or control use of gas fuel, in industrial production and daily life, promote the use of pollution-free clean energy, such as geothermal energy, solar energy, etc., the full implementation of regional centralized heating mode, maximize the smoke emissions of ordinary residents. At the same time, on this basis, we should also pay attention to the strict control of the vehicle exhaust pollution problem, if the vehicle exhaust gas exceeds the standard phenomenon, then it should be completely eliminated. Under the permission of economic and technical conditions, we should speed up the opening and

promotion of trams and other pollution-free vehicles, and pay attention to the promotion and use of new buses. The fuel used is mainly natural gas, which has good cleanliness. Strictly manage the cultural and entertainment places, in order to achieve the effective control of the noise pollution problems, and play an important role in promoting the improvement of the air environment.

### **3.3. Scientific treatment of solid waste**

At the present stage, the classification of solid waste mainly includes three common types: one is industrial solid waste, the second is domestic solid waste, the third is mining solid waste. In urban and rural areas and other areas, solid waste is mostly divided into household garbage, plastic residual film waste and crop straw garbage. To comprehensively control the pollution problem of solid waste, scientific and feasible control measures are necessary to address the actual pollution situation and environmental conditions. At the same time, the treatment of solid waste, but also need to rely on the perfect disposal system, pay attention to the formulation of relevant management countermeasures and implementation plans. At present, many cities of solid waste have become increasingly serious in solid waste. It is an important task facing environmental protection to completely solve and strengthen the pollution problems caused by solid waste. Taking the landfill treatment method, there is no much technical professional requirements, and the processing cost is less. Generally, the landfill treatment of solid waste needs to first be classified, retaining the secondary recyclable waste paper and plastic. Waste containing metal is then extracted with the help of specialized electromagnetic equipment. Finally, carry the treated waste on the transmission for unified landfill treatment.

## **4. Key environmental protection measures in urban planning**

### **4.1. Planning of the environmental protection guidance plan**

Comprehensive is a prominent feature of environmental protection planning, and at the same time, it also occupies an important position in the urban construction and development planning. To design and formulate the guidance plan for environmental protection work should closely fit the development path of the overall urban plan, based on the different needs and future development trends of the city, to ensure the scientific nature and feasibility of protection measures and governance methods. In addition, in the current construction of the urban system in China, the environmental protection overall planning system has a certain particularity, and the implementation of sustainable development policies is the foundation and key to promoting urban sustainable development. At present, adhere to the economic development and construction is still the core guiding ideology of most urban environmental planning, the environmental protection concept and governance work into the system construction, intended to promote the unity and coordinated development of environmental protection and urban modernization construction, build a new model of synchronous development, on the one hand to ensure the economic benefits of urban development and the implementation of the // high environmental protection work. In the urban overall planning, is of great practical significance to the future development.

### **4.2. Analysis the development trend of urban environmental protection planning**

In the context of the gradual development speed of market economy, relevant functional departments should pay attention to the improvement of environmental protection and governance system, transform the previous one-sided pursuit of economic benefits, and give full play to the important role of environmental planning and management. For environmental protection administrative departments, should be environmental planning and development

work in the top priority, // high environmental management efficiency, play the leading role of pollution control work, with environmental protection and sustainable development as the core, build a more complete environmental management function system, formulate and implement environmental planning and development plan, to ensure that the environmental protection and various pollution control work can be steadily implemented.

## 5. Conclusion

Strengthening the research on environmental protection issues is not only to optimize the control of water pollution and air pollution, but also to create a beautiful and harmonious living environment for the public, a suitable urban space, and to help for the stable development of the market economy. Strengthening pollution control is a necessary path to promote the effective rise of life quality of urban residents, and lay a solid foundation for urban modernization planning and construction.

## Acknowledgments

Xiaolong Chen (November 1984- ), email: 2859776942@qq.com, master graduate student, engineer, research direction: urban ecological planning, remote sensing and monitoring of ecological environment, Harbin, Heilongjiang, China.

## References

- [1] Wu Lan. Analyze the key key points of environmental protection in urban planning [J]. Engineering construction and design, 2020 (21): 163-165.
- [2] Xi Xiaoyan. Research on the Role and Status of Environmental Protection Planning in the Urban Planning System [J]. Applied Energy Technology, 2015 (12): 4-6.
- [3] Xia Xiaodong. Planning Environmental Impact Assessment and Urban Planning Response [J]. Environment and Development, 2020,. 32 (07): 23 + 25.
- [4] Zhang Li. Discussion on the ecological environment construction path in contemporary urban planning [J]. Resource conservation and environmental protection, 2021 (03): 136-137.
- [5] Li Fang on the importance of Environmental Protection Planning in Urban Economic Development [J]. Urban Construction Theory (Electronic), 2020 (20): 18-19.
- [6] Wang Weidong. Study on Sewage Treatment Problems and Countermeasures in Urban Environmental Protection [J]. Cleaning the World, 2020. 35(12):45-46.
- [7] Yan Haibo, Zhao Shuo. Analysis on the problems and countermeasures of ecological environment protection in urbanization construction [J]. Chemical Management, 2020(24).4-6.
- [8] Xu Lin. Discussion on ecological urban and rural planning and design in urban and rural planning [J]. Ecological Environment and Protection, 2020, 3(9):72-73.
- [9] Huang Xinrong, Guan Weihua, Chen Mingxing, et al. Urbanization and optimization of ecological environment quality in the Yangtze River Delta urban agglomeration [J]. Geographical Science, 2021, 41(1):64-73.