Analysis of Environmental Protection and Green Ecological Construction in Northwest China

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Abstract: With the rapid development of China's economy and society, innovative design concepts such as green, ecology and environmental protection have gradually penetrated into all aspects of modern people's daily life and work. China's economic development is in a high-speed stage, but in today's China, the unbalanced development has a long history. At present, under the leadership of President Xi, all aspects have been well planned and governed. The proposal of environmental protection strategy and the construction of green ecological infrastructure have improved China's overall ecological environment to a certain extent and promoted sustainable development, which is also the best strategic choice to achieve coordinated and sustainable development of economy, society and environment.

1. The emergence and development of environmental protection design concept

1.1. The environmental problems in northwest China
Geographically, Northwest China mainly includes Shaanxi Province, Gansu Province, Ningxia Province, Qinghai Province and Xinjiang Uygur Autonomous Region, with a total area of about 3.09 million square kilometers. The local natural environment is harsh, the local desert area accounts for about 80% of the total desert area in China, and the desertified land is complex and diverse (table 1.).

Table 1. Area and proportion of different types of desertified land in northwest China

| Type of Desertification | Area/10,000 km² | Proportion |
|-------------------------|----------------|-----------|
| Wind erosion desertification | 183.20 | 69.82% |
| Water erosion desertification | 25.52 | 9.73% |
| Salinized land | 17.30 | 6.59% |
| Freezing desertification | 36.35 | 13.86% |

1.1.1. Environmental pollution problem
Unreasonable exploitation and excessive use of non-renewable energy have led to serious environmental pollution problems. The undesirable phenomenon that the air, soil and water sources...
are polluted by the wanton discharge of industrial three wastes and the excessive use of pesticides and fertilizers is becoming increasingly serious in Northwest China. With the continuous development of industrialization in Northwest China, the living standard of urbanization has been further improved, and the rapid expansion of regional population has led to an increase in the pressure of ecological environment. Most of China's heavy industry production bases and energy bases are distributed in Northwest China. The operation of these heavy industry bases has destroyed the natural ecological environment of local and surrounding areas, and inevitably brought about environmental problems.

1.1.2. ecological damage

1.1.2.1. serious soil erosion
Northwest China is the region with the most serious soil erosion in China, which is mainly concentrated in the Loess Plateau. Soil erosion is also the main cause of poor land and desertification. Over-cutting of forest vegetation makes the land lose the protection of vegetation. Hydraulic scouring brings the surface sediment into the water, and the sediment in rivers deposits, which makes the riverbed rise and blocks rivers and lakes, which is also the main cause of floods.

1.1.2.2. serious soil desertification
The total area of desert and Gobi in Northwest China is 1.5 million square kilometers, and the desert area accounts for 16% of the total land area of China. It is the main concentrated area of desertified land in China. Because of people's unreasonable exploitation and utilization, the desert area is enlarged, the ecosystem is seriously damaged, the speed of desert erosion to oasis is accelerating step by step, and desertification is serious, which has gradually evolved into a global environmental problem.

1.1.2.3. secondary salinization of soil is a serious problem
In northwest China, the total area of salinized land is large, with dry climate, less precipitation, strong evaporation, lack of surface water, unreasonable irrigation and drainage methods and improper exploitation and utilization of groundwater, which not only was test water resources, but also easily leads to the increase of groundwater level, and the salt of soil gradually rises to the surface, with strong evaporation. The salt attached to the soil surface when the groundwater level is higher than the critical depth, forming salinized land.

1.2. The causes of environmental problems in northwest China
The natural cause of soil erosion is the special climate and ecological foundation of Northwest China under the closed geographical conditions. In this area, rainfall is scarce, vegetation coverage is low, and human deforestation have destroyed the ecological environment. However, local rainfall is relatively concentrated, without the protection of surface vegetation, and rainwater flows through the ground to form surface runoff. The geological state of ravines in Northwest China makes surface runoff intensify the role of water erosion. On the other hand, a large area of Gobi and desert is distributed in Northwest China, with low vegetation coverage and lack of natural protection forest. In addition, the erosion of water takes away the surface sediment and exposes the coarse sand layer to the surface. This wind erosion and water erosion promote each other and form desertified land[2].

2. the green ecological construction and environmental protection issues

2.1. the contradiction between the development and construction of northwest China and environmental protection
There is a vicious circle between green ecological construction and environmental protection in northwest China. On the one hand, the environmental problems caused by land development and occupation; On the other hand, the fragile ecological environment in turn restricts the construction of infrastructure, which leads to the contradiction between environmental protection strategy and
development and construction. As a result, the spatial structure of Northwest China is unreasonable, and the environmental and ecological problems are becoming increasingly serious. Northwest China has poor resource conditions and harsh environment, and green ecological construction is the key to change the ecological environment and realize the sustainable development of Northwest China. There is no good foundation for building a green ecological environment.

2.2. green ecological construction and environmental protection issues raised
Eco-environmental system directly affects water resources, land and air resources, biological resources and other resources of human natural survival and economic development, and is a complex ecosystem related to the sustainable development of human society. A good ecological environment is a social welfare that can better benefit the economy and people's livelihood. China has begun to enter a critical period of development to meet the growing needs of our people for the construction of beautiful and high-quality ecological environment, and constantly improve and meet the growing needs of our people for the development of ecological environment. At the same time, this green mountain is also a Jinshan Yinshan which is related to the sustainable prosperity and development of the Chinese nation. Therefore, the new concept of protecting environmental resources and promoting the construction of green eco-city came into being.

2.3. the development trend of green ecological construction
The construction of eco-social civilization system has always been a long-term plan and fundamental strategic plan for the sustainable prosperity and development of the contemporary Chinese nation. The planning and construction law of eco-social civilization in China has been incorporated into the overall layout of the "Five in One" construction, and "green mountains and green mountains are Jinshan Yinshan" has been taken as a new way of green economic development, which is gradually developing in depth. The development trend of eco-social civilization construction and economic development system planning and construction is surging and unstoppable. China has entered a period of development opportunity to promote the construction of ecological and social civilization system.

3. the importance of environmental protection and green ecological construction in northwest China

3.1. Green ecological construction is an important means of coordinated and sustainable development
The green ecological construction in Northwest China embodies the harmonious coexistence between man and nature, optimizes the relationship between man and nature, emphasizes the value concept of combining nature-oriented and human-centered and constructs the spatial ecological network in Northwest China with "green ecology", which is an important strategic choice to promote the fundamental qualitative changes related to the mode of production and people's life and use. It is helpful to speed up the establishment of a dynamic balance system of green circular development based on the theory of "nature-society-economy-nature", coordinate economic development, and harmonize with the harmony and sustainable development of the whole economy and society, so as to create a good living ecological environment for people's lives, and realize the diversification of ecological resources and sustainable development in a wide range.

3.2. Green ecological construction is a necessary prerequisite for increasing the competitiveness of urban ecology
The main core idea of green ecological construction is to adhere to green and ecology, which is a major problem to solve the close relationship between man and nature. Strengthening green ecological construction will help to create a healthy and livable green living ecological environment with blue sky, green trees and clear water as soon as possible. A good urban socio-economic environment is bound to be a higher and deeper pursuit of life. Therefore, creating a good urban socio-economic environment and promoting the healthy development of urban socio-economy are indispensable
aspects in promoting the construction of a green ecological and civilized city, which have strong social vitality and are people's common ideals and pursuits[3].

3.3. Green ecological construction has improved the level of urban ecological civilization in Northwest China

A healthy lifestyle is the pursuit of people at present. Relying on the construction of a green ecological civilized city in China, we should always adhere to the harmonious unity of environment and social economy in the future development process, and we should not take measures to destroy nature and ecology, and we should not excessively pursue economic development without considering the adverse effects caused by environmental damage. The coordinated and healthy development of urban environment, economy and society is an important manifestation of sustainable development. The utilization of resources can be effectively and rationally used, and the development of urban construction can be promoted in an orderly and healthy manner. It is of great strategic significance for us to carry out social and economic life efficiently and organized, whether we are now or in the future[4].

4. the methods and strategies of environmental protection in northwest China and the sustainable development of green ecological construction

4.1. Comprehensive, coordinated and sustainable, and promote the construction of green ecological infrastructure

To promote China's green ecological construction, guided by the concept of green ecological civilization and green development, we should do a good job in infrastructure construction, optimize the layout of production capacity structure, and guard against various ecological environmental pollution risks. Formulate environmental protection standards and specifications for infrastructure construction, increase environmental protection management services and technical support for major infrastructure construction projects in Northwest China, promote ecological energy-saving emission reduction and environmental protection technical standards and normative practices in green energy-saving transportation, green energy-saving buildings, clean green energy and other industries, promote comprehensive protection of ecological environment in water, atmosphere, soil, biodiversity and other fields, and improve the level of environmental greening, low-efficiency carbonization project construction and project operation management.

4.2. rational development and construction of ecological green space, building the foundation of environmental protection

The unique geographical environment in northwest China also affects the environmental problems in eastern China to a certain extent. It is in the upwind direction of monsoon climate and is often the source of severe weather disasters such as sandstorms. Therefore, in the construction of northwest China, it is necessary to continuously increase the area of local afforestation and planting land, return farmland to forests and grasslands, give full play to the important role of local forest greening in water conservation, soil and water conservation, wind prevention and sand fixation, and choose a desert vegetation suitable for the local area. The formation of green shelterbelts in northwest China, the construction of ecological environment protection and management foundation, and the reduction of sandstorms and other severe weather disasters in eastern China are conducive to accelerating the pace of development and improving the regional ecological environment[5].

4.3. Accelerate the upgrading of industrial structure and improve the ecological level in Northwest China

The transformation of energy supply structure and natural resources allocation structure will directly affect the healthy and sustainable development of national economy and the stability of economy and society in Northwest China. In the process of promoting economic development in Northwest China,
special attention should be paid to speeding up the adjustment of green industrial structure, transforming enterprise productivity and management mode, combining green industrial structure with the requirements of economic ecological environment system construction according to the special natural environment conditions and ecological resources and environmental characteristics of the region, and truly realizing the coordination between green ecological construction and regional economic and social development in Northwest China.

5. conclusion
The theory of green ecological environment construction is based on environmental protection, which makes full use of green ecological environment construction to complete the self-regulation of green ecosystem and make green ecosystem self-repair. The present situation of green ecological environment in Northwest China has a direct impact on the future development of Northwest China. Only by developing green circular economy and making targeted self-improvement on green ecological environment protection can the protection of green environmental resources and green ecological construction in Northwest China keep a high degree of coordination and sustainable development.

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