Assessment and Analysis of Economic Loss of Air Pollution to Human Health Based on Eco-city Vision

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Abstract: The problem of air pollution is not only a regional problem, but also a worldwide one. Since the reform and opening up, China's economy has developed rapidly, and the process of urbanization has been accelerated gradually. In the process of urbanization, the environmental pollution is gradually aggravated, and the sustainable development of cities and the construction of ecological cities in China are also affected. Hazardous substances and harmful substances in the air can lead to many diseases that seriously affect human health, which will inevitably lead to a sharp decline in people's labor force. In turn, it will have an impact on the economy in the region and bring huge losses to the economic development of the city. The governance of air pollution depends to a large extent on the state's policy system and government regulation. How to effectively combine the vision of eco-city, coordinate the relationship between economic development and environmental pollution, and seek a sustainable economic development path is an urgent problem for all countries in the world.

1. Introduction

In recent years, the problem of air pollution has become not only a regional problem, but also a worldwide problem. Since the reform and opening up, China's economy has developed rapidly, and the process of urbanization has been accelerated gradually. With the deepening of industrialization, environmental problems have become increasingly prominent [1]. However, people's awareness of environmental protection has gradually increased. This leads to a contradiction between people's requirements for the environment and the increasingly serious environmental problems. In the process of urbanization, the environmental pollution is gradually aggravated, and the sustainable development of cities and the construction of eco-cities in China are also affected [2]. Environmental pollution will do great harm to human body, and people's body has been damaged. This will inevitably lead to a sharp decline in people's labor force, which in turn will have a huge impact on the economy of a certain region [3]. The public nuisance incident caused by urban air pollution in the short term has caused alarms for people [4]. How to coordinate the relationship between economic development and environmental pollution and seek a sustainable development path for the economic environment is an urgent problem for all countries in the world.

With the rapid development of China's economy, China's industry has made relatively rapid progress. The mechanism of the impact of air pollution on health is complex. It is a hot issue of current research to quantitatively study their relationship and calculate the resulting health loss [5]. Urban air pollution mainly affects human health, agricultural production and the formation of acid rain. The joint prevention and control of regional air pollution is mainly aimed at solving regional and complex air pollution problems, mainly relying on the regulation of regional governments, and reaching consensus with local governments on the overall interests of the region. The joint prevention of air pollution has broken the boundaries between countries and regions, and has made air pollution a whole [6]. The concept of regional joint defence and control is of great significance for solving international air pollution. However, because it is difficult to reach a consensus on the economic interests of different regions, it is difficult to implement it [7]. Harmful substances in the air can lead to chronic bronchitis, asthma, lung cancer and so on. It seriously affects people's health and brings huge losses to urban economic development.

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2. Injury to Human Body Caused by Air Pollution

2.1 Influence of Air Quality on Health

Air pollution has many factors affecting health, and the impact mechanism is complex. Consuming a certain percentage of resources requires the same proportion of ecological capacity to bear the negative impact on the resource environment. That is to say, the self-purification ability of the polluted resources environment itself to the negative impact on the environment, beyond the self-purification capacity of the ecosystem, will cause environmental pollution. In the study of small-scale ecosystem services, it is concentrated only in urban areas. Only a few studies use rural areas as research areas to calculate the value of ecosystem services, and begin to analyze the relationship between ecosystem services and population welfare [8]. The economic loss caused by air pollution to human health can be mainly measured by the number of premature deaths caused by air pollution and the economic loss caused by premature deaths caused by air pollution. When the economy develops to a certain extent, it will be strengthened in technology, concept or other aspects.

Air pollution has an impact on the health of every inhabitant, and increasing the number of inhabitants does not reduce the degree of pollution of every inhabitant. The control of air pollution should be strengthened to promote the development of ecological system. The correlation structure between perceived familiarity and scores of local and non-local samples is shown in Fig. 1.

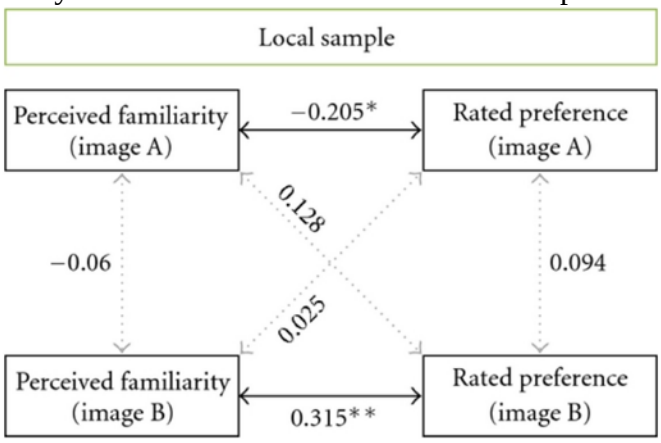

Fig. 1 Relationship between local samples and non-local samples

2.2 The Health Impact of Major Pollutants

The health effects of air pollution are divided into acute and chronic. Acute effects are short-term, such as bronchitis, chest discomfort, and asthma. These symptoms can be alleviated if exposure to air pollution is reduced. When exposed to air pollution, the impact of air pollution on most people is manifested by an increase in the body's load and does not cause physiological changes. The body can be adjusted by itself, with almost no symptoms. The economic loss caused by air pollution caused by premature death of all causes of death in human health can be evaluated and explained by the revised human capital method [9]. With the development of cities and the increase of motor vehicles, the concentration of lead in air increases. Air pollution mainly causes respiratory diseases and cardiovascular diseases. According to the characteristics and concentration of air pollutants, it can also lead to other diseases. Air pollution is increasing rapidly year by year, the growth rate is gradually exceeding the economic growth rate, and the environmental pressure is rising year by year.

Once air pollution is formed, it will affect the health of every resident in the city. It is difficult for anyone to avoid such an impact or pay a high price. The core value of ecology is to construct new values and order of harmony between man and nature, between man and man, between man and society. Fig. 5 shows the types of mutual aid in environmental and ecological construction.

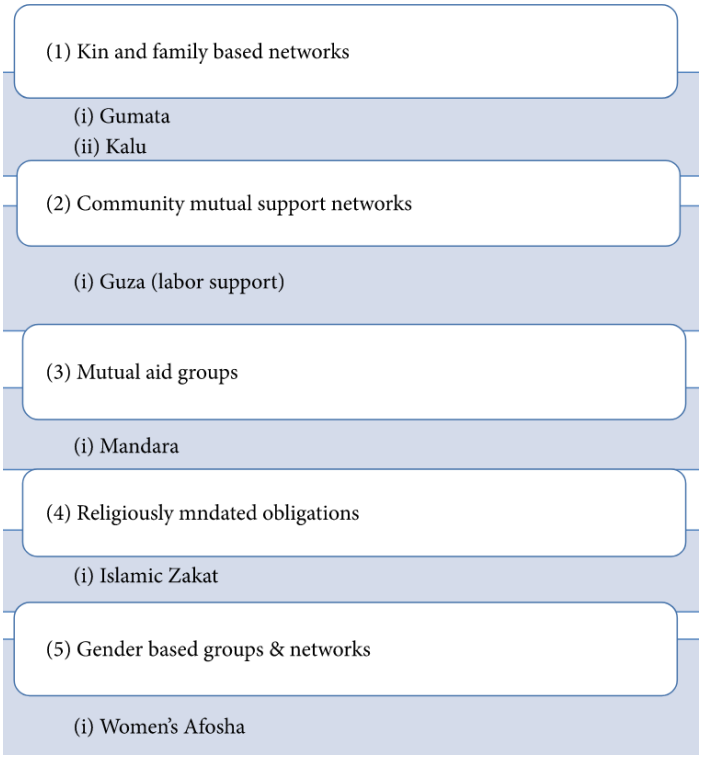

Fig. 5 Types of mutual assistance practices in environmental and ecological construction

3. Assessment of Economic Losses Caused by Air Pollution

3.1 Economic Theory Analysis of Air Pollution

As an environmental product, urban air pollution has a negative impact on people's production and life, especially on the health of residents, and thus causes the loss of people's welfare. The city development in the downtown area is improving day by day, and the pollution control is also the largest, and with the relocation of chemical companies, air pollution has slowed down. The excessive exploitation and utilization of resources makes the ecological environment more fragile, environmental problems become more prominent, and air pollution is becoming more and more serious. The cost of disease mainly refers to all the expenses of the air pollution victims during the period of their influence and the direct and indirect costs associated with the patients [10]. These expenses generally include outpatient expenses, emergency expenses and living expenses during hospitalization. With the rapid development of urban construction, significant changes have taken place in air pollution in recent years.

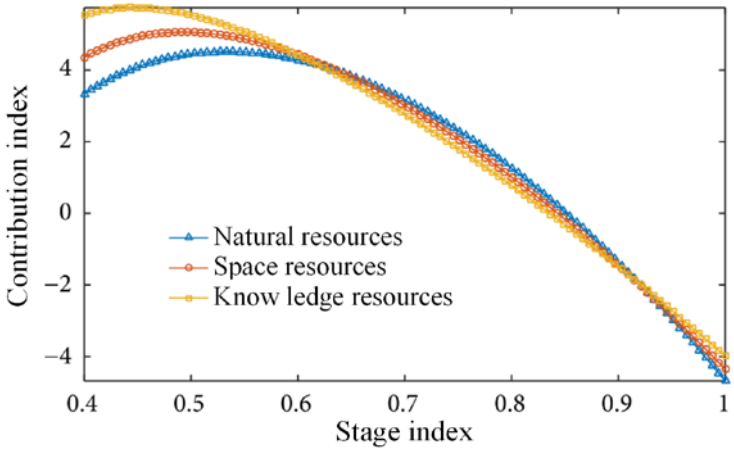

Fig. 3 Contribution of different resources in different stages of environmental development

Social benefits are mainly manifested in the maximization of social resort to force and demand

that output be determined accordingly, which is different from that of private profits of firms in a fully competitive market based on the principle of profit maximization. No resource can play an independent role as a factor of production. Only when natural resources are combined with social resources can they be transformed into productive forces with use value and value. Fig. 3 shows the contribution of different resources in different stages of environmental development.

3.2 Economic Loss of Diseases Caused by Air Pollution

Urban air quality level is provided by every resident in a non-polluting way to contribute to the production of such public goods. The quantity supplied is, to some extent, the cumulative contribution of each resident. From the point of view of the current situation and development trend of multi-functional cities at home and abroad, dynamic assessment is an analysis of the relationship between spatial heterogeneity of different ecosystem services and ecosystem services. In addition, the relationship between ecosystem services and ecosystem structure and function remains the most important breakthrough in future research. The human capital law can be divided into two parts in the economic loss caused by environmental pollution, namely direct economic loss and indirect economic loss. The clarity, specificity and security of resource property rights are the basic requirements for ensuring the effective operation of market mechanisms. Air is an environmental resource, and its indivisibility makes property rights difficult to define, or defines costs too high, belonging to public goods. An entity can be understood as an ecological process of the structure and implementation of an ecosystem service provider. Although each polluter considers the negative effects of pollutants on existing values. But he only considers the impact on himself. One of the most advantageous personal marginal costs is less than the social marginal cost.

4. Conclusion

The tension between economic growth and air pollution has become increasingly prominent. In the context of sustainable development, it is also the general trend to seek coordinated development of the economy and the atmosphere. This paper systematically discusses the theoretical and practical aspects of the assessment of human health economic losses caused by urban air pollution. In the process of economic development, the state of the environment has deteriorated and improved first. This is also the path that developed industrial countries have traveled. Through the monitoring and analysis of urban pollution, and effective governance and control. It can reduce air pollution, thereby reducing the incidence of disease and mortality, and reducing health economic losses. There is a regional imbalance in air pollution. The control of air pollution depends largely on the national policy system and government supervision. Therefore, we need to continue to strengthen regulation and supervision, otherwise there is a good chance of a rebound. In order to achieve sustainable development and build an ecological city, we must solve the serious environmental problems brought about by economic development. We should draw lessons from the experience of developed countries and take the road of sustainable development with economic growth and pollution control.

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