

REVIEW ARTICLE

Environmental ethics support for eco city construction

Guowen Zhou*, Shuangshuang Li

College of Humanities and Social Sciences, Beijing Forestry University, Beijing 100083, China. E-mail: 13522637012@163.com

ABSTRACT

The modern city based on the principle of anthropocentrism has caused many urban environmental problems, resulting in the contradiction between man and nature gradually developing into a state of binary opposition, and promoting the urban ecosystem to be on the verge of danger. On the basis of deep reflection on modern urban environmental problems, eco city construction came into being and developed rapidly. Eco city is an urban development model to solve the current urban environmental crisis and realize the harmonious coexistence between man and nature, man and man, man and society. Eco city has internal consistency with environmental ethics, which contains the environmental ethics of non anthropocentrism, sustainable development and environmental justice, environmental ethics guides the construction of ecological city and is an important support for the construction of ecological city. First of all, environmental ethical values such as environmental ethical values, environmental ethical codes of ethics and environmental ethical beliefs provide theoretical support for the construction of ecological city. Secondly, environmental ethical practices such as ecological ethical culture, ecological moral education, low-carbon economic model and ecological ethical legal system provide practical support for the construction of ecological cities.

Keywords: ecological city; ecological consciousness; ecological moral education; low carbon economy; green consumption; environmental ethics and legal system

1. Introduction

City, as an important gathering place for human production and life and an important carrier of social economy, politics and culture, condenses human great creativity and wisdom and embodies social development and civilization in different times. After the industrial revolution, the process of world urbanization is in the stage of accelerated development. In 1800, only 2% of the world's population lived in cities. In 1950, it rose rapidly to 29%. According to the statistics of the United

Nations state of the world's cities report 2008, 2009: "At present, more than 50% of the world's population lives in urban areas, and nearly 60% of the world's population will be urban residents in the next 20 years." The blue book released by the Chinese Academy of Social Sciences also shows: "In 2011, China's urban population reached 691 million, the urbanization rate reached 51.27%, and the urban resident population exceeded the rural resident population for the first time. In the next 20 years, nearly 500 million farmers in China will need to be citizenized." It can be seen that urbanization is the inevitable result of the wave of industrial civilization.

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in modern society. As the main settlement of mankind in the future, cities have become a historical necessity.

With the rapid increase of urban scale and population, the contradiction between city and nature has become increasingly prominent. The UN-HABITAT report states that: "Although the world's urban area accounts for only 2% of the world's total land area, it consumes 75% of the world's natural resources and produces 75% of the world's total waste. In particular, the process of large-scale urbanization is often characterized by a large concentration of population, a large consumption of resources and a large discharge of pollutants, which seriously destroys the harmonious coexistence between man and nature and causes a series of negative environmental problems that cannot be underestimated^[1]." The deterioration of urban environment has attracted great attention of governments all over the world and profound reflection on modern urban construction. On this basis, eco city construction came into being.

Eco city is the only way to solve the deterioration of ecological environment faced by the city, and realize the urban development mode of harmonious coexistence between man and nature, man and man, man and society. The decline of urban ecological environment is only the symptom rather than the root of the problem, and the root of environmental problems lies in human values. Therefore, the construction of ecological city cannot only rely on material, technology and resource means. The most fundamental thing is to change human values in order to become the leading idea of ecological city construction. Non anthropocentric environmental ethics, starting from the study of the deep relationship between man and nature, provides solutions to urban environmental problems by changing human attitudes towards nature, which is of great significance to the current ecological city construction. If environmental ethics is the theoretical basis, eco city construction is the specific practice under its guidance. Building an eco city from the perspective of non anthropocentric

environmental ethics is bound to achieve harmony between man and man, man and nature, man and society.

2. The ethical internal causes of environmental problems in traditional urban construction

Cities originated in the era of agricultural civilization. After continuous development, the city has gradually become a gathering place of population concentration, developed industry and commerce, and human material and spiritual wealth. In a civilized agricultural society, the development speed of cities is very slow, the number and scale of cities are small, the proportion of urban population is also very low, and the phenomenon of urbanization is not significant. The material conditions and technical means in agricultural civilized society are very simple. Human beings rely on nature to survive and live. They are very awed of nature and obey and adapt to the arrangement of nature. In terms of urban construction, the traditional agricultural urban construction is based on nature and follows the urban development mode of "natural ontology". Therefore, urban construction in the era of agricultural civilization has little impact on the environment, the restoration ability of urban ecosystem is strong, and the city and nature are in the harmonious unity of the primitive small-scale peasant economy.

Although cities originated in the era of agricultural civilization, large-scale population migration to cities appeared after the industrial revolution. The mechanized mode of production brought about by the development of science and technology has accelerated the aggregation of the world's population to cities, and the number and scale of cities began to increase sharply after the industrial revolution. Modern cities in industrial civilized society, on the one hand, have created huge material wealth for mankind and greatly improved human living standards. On the other hand, the rapid development of cities has also brought many problems to cities and human society. As UN-HABITAT has pointed out: "Cities present the best

or worst side of mankind. They are the material carrier of history and culture and the incubator of various innovations, industries, science and technology, entrepreneurial spirit and creativity. Cities are the materialized form of mankind's highest thoughts, ambitions and aspirations. Cities can promote national economic growth, promote social development and provide employment opportunities by creating wealth, but they may also become a hotbed of poverty, social discrimination and environmental degradation^[2]."

Environmental deterioration has become a bottleneck restricting the development of modern cities in industrial civilized society. Modern cities in industrial civilized society regard material wealth as the only standard to measure whether the city is developing or not, overemphasize economic construction and ignore environmental protection, and even wantonly destroy the ecological environment, plunder natural resources and indiscriminately kill wild animals, resulting in the deterioration of urban air quality, water pollution, garbage siege and a series of urban environmental problems endangering human health.

The deep-seated reason for the environmental deterioration of modern cities in industrial civilization society is mainly caused by the anthropocentric environmental ethics held by mankind. The science and technology of industrial revolution has changed the previous production mode of cities and reduced human dependence on nature. Modern machines and tools have enhanced their self-confidence in transforming nature, making mankind crazy to march into nature. Therefore, human's attitude towards nature has changed from awe, adaptation and obedience to nature in agricultural society to ruling, controlling and conquering nature. Human beings regard themselves as the master of nature, regard nature as a tool used by human beings, and ask for unlimited from nature.

The industrial civilization city development model based on Anthropocentrism eventually makes the contradiction between man and nature gradually develop into a state of binary opposition, and makes

the earth's ecosystem begin to be on the brink of danger. As Edward goldsmith, a British ecologist, said: "The deterioration of the global ecological environment can be likened to the Third World War. Due to this war, nature is collapsing and declining, and its speed has reached this level: if this trend continues to develop, nature will soon lose its ability to support human beings." On the basis of deep reflection on the urban environmental crisis of industrial civilized society^[2], mankind will focus on the construction mode of ecological city in the future.

3. The emergence of eco city and its environmental ethics

Facing the serious ecological crisis, resource depletion and species extinction faced by modern cities, people began to look for a new model to replace modern cities in industrial society and explore a new path of sustainable development in the future. From Howard's "garden city" in the west to Chuang Tzu's "Unity of Heaven and Man" in the East, all reflect the vision of human beings to find an ideal living environment and pursue the harmonious coexistence between man and nature in the "man and nature circle program" of UNESCO in the 1970s, the concept of eco city was put forward for the first time. Under the initiative of this plan, as a new and future urban development model, eco city came into being and developed rapidly.

Eco city refers to "under the influence of the idea of sustainable development, according to the principles and methods of ecology, comprehensively using modern science and technology and other means to guide the construction of urban economy, society and natural environment, so as to maintain a high degree of harmony among the three, so as to achieve a harmonious and unified complex ecosystem between man and nature, man and man, man and society^[3]". In short, eco city is an urban model that realizes the coordinated development of urban economy, population, environment and society on the premise of maintaining the balance and stability of ecosystem.

As a brand-new urban model, eco city has profound connotation. From the perspective of ecological philosophy, the essence of ecological city is a harmonious city between man and nature, man and man, man and society from the perspective of ecological economics, eco cities are required to take the carrying capacity and environmental capacity of ecosystem as the benchmark of their economy and society. From the perspective of ecological sociology, ecological city is not only natural ecology, but human ecology. From the perspective of system theory, eco city is a social, economic and natural complex ecosystem with reasonable structure, stable function and dynamic state^[4].

As an ideal model for human living in the future, eco city has rich characteristics. It requires the harmonious development of city and society. It requires to improve the utilization rate of resources and expand the recycling of materials, which is highly efficient. Guided by the theory of sustainable development, it regards economy, environment and society as a whole or system, which is systematic. It emphasizes the overall balance of economy, environment and society and the all-round development of people.

The environmental ethics of non anthropocentrism is consistent with the ecological city. Both are the inevitable result of human reflection on industrial civilization, the theoretical basis and important path to solve the current ecological crisis, and the objective choice to take the road of sustainable development. Eco city mainly includes the following three aspects of environmental ethics:

First of all, eco cities contain non anthropocentric environmental ethics. The ecological city called for by the environmental philosophy of non anthropocentrism is the discovery of ecological conscience, ecological living environment and ecological lifestyle of urban people seeking to get along with the earth more friendly and harmonious it is no longer a mysterious ideal that reveres nature, but a living reality in response to the ecological crisis^[5]. Compared with the

anthropocentrism thought held by modern cities in industrial society, eco cities regard the natural ecosystem as a whole and human beings as a member of the ecosystem. They require us to respect and love nature, and require human beings to treat all existence on the earth equally and respect the right to survival of other life. The construction of ecological city requires the harmony between man and nature as the criterion of human ecological behavior, and emphasizes that the construction and development of the city must be based on the maintenance of ecosystem balance. Therefore, eco city contains non anthropocentric environmental ethics, which is the embodiment of a new order seeking the harmonious development of man and nature.

Secondly, eco city contains environmental ethics of sustainable development. Sustainable development is a new viewpoint of environmental ethics, which means that we should consider not only the interests of contemporary people, but also the interests of future generations. The concept of sustainable development requires that our human production and lifestyle should follow the principles of moderation, simplicity and balance to maintain a virtuous cycle of the whole ecosystem. Compared with the plundering and destruction of nature held by urban construction in industrial society, eco city follows the concept of sustainable development of balanced economic and environmental development. The construction of ecological city takes the carrying capacity of natural ecosystem as the moral bottom line. It is required to establish ecological awareness and long-term interests, develop circular economy, advocate green consumption and emphasize sustainability. Therefore, eco city contains the environmental ethics of sustainable development, which is the fundamental way to realize the sustainable development of ecosystem.

Finally, eco city contains the environmental ethics of ecological justice. Ecological justice is an important concept of environmental ethicsecolgical justice means that "in the ecological community, human beings should reasonably exercise their environmental obligations to treat all members

(including human beings themselves) and promote the harmony between human beings and between human beings and nature”^[6]. Eco city regards the whole ecosystem as an organic whole, in which man and nature interact, influence and restrict each other. Eco city requires human beings to make rational use of their rights, fully consider the rights of nature and respect the internal value of natural existence. In urban construction, we should follow the principle of fairness, treat all creatures on the earth fairly and fairly, safeguard their survival rights, and regard the protection of the ecological environment as our due obligation. Therefore, eco city contains the environmental ethics of ecological justice, which follows the basic principle of coordinated development between city and nature.

4. Theoretical support of environmental ethics in eco city construction

The first mock exam of city construction is not unified. But on the basis of the geographical conditions of the city's differences, there are consistent requirements for the basic ethics of eco city construction: It is how to properly treat natural human beings and human activities and natural growth in the process of urban sprawl, and how to guide the construction of eco city with the idea of environmental ethics of non anthropocentrism. “Environmental ethics is a theoretical system of ethical belief, attitude and behavior standardization about the relationship between man and nature. It is a new ethics that respects the value and rights of nature”^[7]. The essence of environmental ethics is to require human beings to respect, love and treat nature well, and change the way human beings treat nature in industrial society.

The development of Ecological Urbanization draws on the correct ideas of environmental ethics and is also experiencing a long way of gradual progress in the running in of theory and practice. “Environmental ethics is not an abstract theoretical discussion, but has a clear value orientation. It originates from the thinking of practical

environmental problems, and its purpose is to provide moral theoretical support for practical activities of environmental protection. Environmental ethics takes the high unity between human beings and nature as the starting point, and requires people to recognize the position of human beings in nature, their trust in nature, their responsibilities and obligations to nature, and bring the power of first care and morality into the adjustment of the relationship between human beings and nature”^[8]. If environmental ethics is the soul and idea, eco city construction is a specific practice under the guidance of environmental ethics. The value concept of environmental ethics provides the following three theoretical supports for Eco City Construction:

Firstly, environmental ethical values provide value guidance for eco city construction and play a leading role in eco city construction. The construction of ecological city is inseparable from the coordination and unity of man, nature and society. Environmental ethics regulates the relationship between man and nature, man and man, man and society from the perspective of ethics and morality, so as to make the city achieve the situation of coordination and unity and ecological harmony. Correct environmental ethics, such as non anthropocentrism, the concept of sustainable development and ecological justice, affect people's cognition and emotion about nature, form a stable ecological will, guide people's correct ecological behavior and strive to achieve the goal of ecological city construction. Correct environmental ethical values can make fundamental changes in the spiritual fields such as human ecological value attitude, so that people can gradually get rid of the values of material supremacy in the past, cultivate the values of appropriate consumption, and pave the way for the construction of ecological city. Correct environmental ethics can help people to comprehensively and scientifically understand the relationship between man and nature, between man and man, and between man and society, so as to make human beings gradually move towards rationality in conquering nature, be constrained by their moral

concepts when developing and utilizing nature, and correctly deal with the relationship between good people and nature when transforming nature. It can be seen that environmental ethical values are the theoretical support for the construction of ecological city and the prerequisite for realizing the construction goal of ecological city.

Secondly, environmental ethics and ethics make us clear our responsibilities and obligations to nature and provide code of conduct for the construction of ecological city. Environmental ethics and ethics mainly include environmental protection, ecological justice, respect for life, treat life well, moderate consumption, etc. These moral norms are the basic ethical norms and guiding principles for dealing with the moral relations between man and nature, man and man, man and society in the city. They are essential for the effectiveness and sustainability of eco city construction. In order to extricate mankind from difficulties and build a harmonious city, we must review human attitude towards nature from the perspective of moral value orientation and standardize human behavior towards nature. Environmental ethics and codes of ethics provide necessary guiding principles for protecting the natural environment and building a harmonious living city from the perspective of ethics, aiming at the damage of human activities to the natural environment. They are another theoretical support for the construction of ecological city.

Finally, the belief of environmental ethics arouses our ecological consciousness and ecological conscience and promotes the construction of ecological city. Environmental ethical belief can awaken people's ecological conscience, make people review their attitude towards nature from the perspective of ethics, trigger people's deep ecological emotion and ecological will, cause people's ecological behavior, and make people consciously and actively protect nature, build an ecologically harmonious city and build our beautiful home. To some extent, "the operation of cities and the realization of urban economic development goals are always accompanied by rational activities. The

level of ecological city construction mainly depends on the level of human environmental ethics belief. Therefore, the solution of urban environmental problems can not only rely on legal and economic means, but also appeal to ethical beliefs to arouse people's conscience. Only in this way can the environmental protection movement move from childishness to maturity, from compulsion to consciousness^[9]."

5. Practical support of environmental ethics in eco city construction

Environmental ethics is not only to reveal the theoretical relationship between man and nature, but also to establish a practical action of environmental ethics through the interpretation of this relationship and strive to save the earth. The practical action of environmental ethics provides specific measures for the construction of ecological city and is an important support for the construction of ecological city. The environmental ethics practice of eco city construction mainly includes:

First, publicize the ecological ethics culture and shape the urban ethics atmosphere. Ecological ethics culture is a cultural concept about human and natural ethicsecological ethics culture is a social ideology guided by ecological morality and ecological values. It is the existence mode of the value concept of harmonious development between man and nature. Ecological ethics culture is the soul of eco city construction and plays an important role in promoting eco city construction. Ecological city construction must focus on cultivating and developing ecological ethics culturefirst of all, in the construction of ecological city, it is necessary to extend ethical care to the whole ecosystem of nature and cultivate the ecological ethical culture of human beings advocating, loving, fearing and being close to naturesecondly, the shaping of urban ethical atmosphere requires a long and subtle formation process. In the construction of ecological city, people need to establish a harmonious culture of coexistence and integration between man and nature, change

people's past material dominated lifestyle, and infiltrate this cultural concept into people's daily life, so that people can constantly feel the ecological ethical atmosphere in their daily edification. Over time, people will consciously and actively form the ethical concept of this ecological city.

Secondly, strengthen ecological moral education and shape rational ecological citizens. Ecological moral education is a new type of moral education activity. It guides people to love and fear nature through various educational channels, improves citizens' ecological moral cognition, enhances citizens' ecological moral emotion, and makes people consciously develop "ecological protection consciousness, ideological consciousness and corresponding moral civilization habit of caring or natural environment^[10] and ecosystem". Ecological moral education is the key link of ecological city construction. It is certain that without ecological moral education, ecological city construction is like a castle in the air, which is difficult to achieve the ultimate goal. Strengthening ecological moral education in the construction of ecological city can first prepare for shaping rational ecological citizens with good ecological literacy. Secondly, through ecological moral education, improve the ecological ethics awareness and moral level of the whole society, and promote everyone to contribute to the construction of ecological city with good ecological literacy and environmental moral practice. In the construction of ecological city, the main body of Ecological Moral Education Schools, families and society should unite to contribute to the promotion of ecological moral education and the construction of ecological city.

Thirdly, develop a low-carbon economic model and shape the concept of green consumption. Low carbon economy refers to "obtaining more economic output through less consumption of natural resources and less environmental pollution. It is a way and opportunity to create higher living standards and better quality of life. It also creates the possibility for the development, application and export of advanced technology, and can also create new business

opportunities and more employment^[11] opportunities". Since the concept of low-carbon economy was first put forward in the British energy white paper "our future energy-creating a low-carbon economy" in 2003, the low-carbon economy model has become the main economic development mode of all countries in the world. Low carbon economy, "as a new mode of production, is conducive to the construction of the ecological function of urban environment and the objectivity of natural value. It recognizes that the relationship between urban people and the biosphere is a mutually beneficial relationship, and the relationship between ecological citizens and the earth's ecosystem is a symbiotic partnership^[3]. Green consumption is a modern consumption mode characterized by green, harmony and nature, which is conducive to human health and environment-friendly. Low carbon economy and green consumption are not only effective ways to solve the contradiction between economic development and environmental protection, but also the fundamental countermeasures for the construction of ecological city. During the construction of ecological city, the government can adopt economic, legal and administrative means to encourage enterprises to improve the economic growth of the city with as few natural resources as possible, input as few wastes as possible into the urban ecosystem, and maintain the balance of the urban ecosystem while meeting the urban economic development. In addition, the development of low-carbon economy and shaping green consumption also need the joint efforts of the general public. Citizens can consciously and actively choose green products and guide enterprises in low-carbon production by constantly strengthening their own green consumption concept.

Finally, promote the environmental ethics and legal system and shape the harmonious order of the city. Environmental ethics legal system is to legalize environmental ethics norms and constraints to a limited extent, so that the requirements of environmental ethics can be reflected in law. Law is the bottom line of morality. Legalizing some recognized environmental ethics can provide strong

ethical support for the construction of ecological city. In the construction of ecological city, the status of environmental ethics can be enhanced and the implementation of environmental ethics can be ensured by transforming certain environmental ethics principles and moral norms into legal system and giving some generally accepted environmental ethics legal effect. In addition, the establishment of environmental ethics legal system not only provides a reliable environmental ethics system guarantee for the construction of ecological city, but also a guarantee for shaping the harmonious order of the city. The harmonious order of the city needs both the external constraints of law and the internal constraints of ethics. However, compared with law, the binding force of ethics is weak, and the effect on the construction of urban harmonious order is unclear. Only after the legalization of some recognized environmental ethics can the public really reduce their behavior against environmental ethics, so as to ensure the harmonious order of the city and realize the goal of ecological city. The legalization of environmental ethics needs the joint promotion of the government and the citizens. The government should timely issue relevant ethical legal systems according to the suggestions of the citizens to prevent anti ecological, abandoning nature and non environmental ethics, so as to create a harmonious order of an ecological city.

Conflict of interest

The authors declare no conflict of interest.

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