Environmental Changes and Human Behaviors in China: On Environmental Anthropology with the Chinese Characteristics

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Deterioration of global environmental problems endangered the development of human society. The current study discusses the sustainable development of economic construction and environmental protection in China. It utilizes valuable theoretical and practical methods of modern western environmental anthropology to evaluate the creating and developing process of environmental anthropology with Chinese characteristics. It aims to make contributions to overall development of environmental anthropology in China, both theoretically and practically.

INTRODUCTION

Currently, whether in developed countries or in developing countries, there is a widespread awareness of global warming as the main characteristics of the deterioration of global environmental problems endangering to the development of human society in the world. The worldwide imbalances of ecological issues have brought more serious hazards to the all-round development of human society. It cannot be denied that some unscientific human behaviors, such as long-term indiscriminate discharge of copious quantities of six greenhouse gases, mainly carbon dioxide (CO_2), have led to the consequences of global climate changes. Faced with this grave challenge, governments of the world are making joint efforts from various aspects to address and resolve the environmental crises harmful to the development of human civilization caused by climate change, so that human society can develop in a sustained and stable way (Zhang, 2017).

In the sphere of social sciences, environmental anthropology established by the scholars in some western countries has become one of the fastest growing applied disciplines in recent years. In general, this new frontier discipline is relatively weak in the theoretical system. In contemporary China, there are few research accomplishments and literatures existed in environmental anthropology, accordingly, environmental anthropology is basically a virgin land in China. Nevertheless, considering the reality of situation in social economy development, especially in the treatment of some difficult issues, we often

utilize the concepts and methods of environmental anthropology to deal with these issues. The practice of China's economic and social development not only needs environmental anthropology to play a characteristic role for giving theoretical guidance in ideology, policy design, standard management, but also provides environmental anthropology with a powerful site for academic exploration and experiments (Wang and Tian, 2014).

Despite some huge harmful impacts such as the financial crisis in 2008, China's reform and opening up policies successfully maintained stable domestic situation in terms of rapid development. By overcoming many difficulties, integration of the world economy also promoted international conditions for the relatively slow growth of the international economy. For example, on December 11, 2017, the United Nations released World *Economic Situation and Prospects 2018* at its headquarters in New York. According to this report, in 2017, world economic growth reached 3 per cent (the highest growth since 2011) as crisis-related fragilities and the adverse effects of other recent shocks subside. Regional GDP expanded by 6.0 per cent, outpacing the rest of the world in the same year. Against this backdrop, East and South Asia remained the world's most dynamic and fastest-growing regions. China grew at a faster pace of 6.8 per cent, accounting for about a third contribution to global economic increase in 2017 (Sheng, 2017). Looking ahead, Chinese growth is expected to remain solid, supported by robust domestic demand and accommodative fiscal measures. In this kind of good prospect domestic and international trend, people can make some meaningful explorations on the related problems of environmental anthropology (Peng, 2017).

It is particularly important to note that some of the scholars with a sense of mission in China have already started to devote themselves to the study of environmental anthropology and have made not many but valuable scientific achievements. We believe that, undoubtedly, the academic achievements in this field need to be comprehensively summarized as quickly as possible, so that environmental anthropology, a new social science theory, will be introduced to readers and will play its due role in the practice of economic and social development (Mu, 2013).

ENVIRONMENTAL CHANGES AND HUMAN BEHAVIORS IN CHINA

In this research, we provided a systematic and detailed overview of the results of the study on global environmental change and human behaviors and expounded the development of environmental anthropology in China. What needs to be emphasized is that we not only explained the objective background for the emergence of environmental anthropology in China but also analyzed many examples of the specific application of environmental anthropology during economic and social development. The existing scientific research has made it cleared that it is some unscientific production and life styles, which are represented by those of the industrialized countries, that have caused enormous quantities of greenhouse gases to be discharged at random, resulting in global warming; and as a result, the frequency of extreme weather disasters such as droughts, floods, snow storms and hurricanes has increased significantly, and the loss of human lives and properties has been serious. Since China has a vast territory and a large population, it has become one of the country's worst affected by climate change (Wang and Mao, 2011).

For a long time, China has, by relying on its own efforts on the one hand, overcome the economic difficulties caused by environmental degradation and, on the other hand, actively participated in many major activities of the international community to protect the environment. In June 1972, the Chinese delegation attended the UN Human Environment Conference held in Stockholm, Sweden put forward some suggestions about environmental protection, making its own contribution to the success of the conference. This conference adopted *The Declaration of the United Nations Conference on the Human Environment,* also known as *The Stockholm Declaration*. The Declaration states that: "Man is both a creature of his environment and a builder of his environment," which clearly defines the relationship between man and his environment. The Declaration was a landmark international document that marked a leap in human environmental consciousness. Since then, the environmental issues have been officially put

on the agenda of the international community, and the people around the world have come to work together to save the earth (Zhang, Nong and Han, 2017).

In December 2009, the Chinese delegation again attended the United Nations Climate Change Conference 2009 in Copenhagen, capital of Denmark, which has been recognized by the international community as a very important human conference since the Second World War. The Chinese delegation worked with the representatives from other countries to formulate and adopt the *Copenhagen Accord*. Though the *Copenhagen Accord* bears no legal significance, it conveys the following clear information: Human beings must largely change the production and life styles unsuitable for environmental protection, build a low-carbon economy, promote new thinking, and adopt current ways of life (Zhang, 2013).

While interpreting environmental anthropology, this study widely absorbs the cultural knowledge of human history by following the principle of the sea refusing no river. The earliest research on the relationship between environmental change and human is *The Bible*, which is worshiped by most people there. In many western countries, for example, the story of *Noah's Ark*, as described in the *Bible*, still has an impact. For another example, on October 5, 1948, the United Nations Educational, Scientific and Cultural Organization (UNESCO) and the French Government jointly advocated the formation of the International Union for Conservation of Nature and Natural Resources (IUCN), whose headquarters is in Glang, Switzerland. IUCN is a quite special and authoritative organization with members from more than 180 countries, including 74 government members, 110 government agencies, and more than 750 non-governmental organizations (Bai and Zhang, 2017).

China became a government member of IUCN on October 20, 1996. 1,000 internationally renowned scientists and 6 global committees more make up IUCN currently. The academic research results obtained by IUCN scholars proved that "human rights, fairness, development, deforestation and the governance of indigenous peoples and local communities" are inextricably linked. Some branch agencies of the Society for Applied Anthropology from the USA not only came up with the theory of environmental anthropology but also suggested that the current study should focus on the response of local ecological environment and population economic activities to environmental change under the global conditions (Dong, 2010).

The political leaders and scholars of contemporary western industrialized countries have specially taken environmental change as the subject of discussion. Barack Hussein Obama II served as the 44th President of the United States, for instance, explicitly linked carbon emissions reduction to the national strategy of dominating the world, and he stressed that it is the time now for the United States to play a leadership role in dealing with global warming and to begin to reduce its dependence on foreign energy. Advice from others may help us overcome our shortcomings. Therefore, to learn and study the viewpoints of the international academic community and government leaders can improve China's ability and efficiency to deal with world climate change (Du, 2011).

On December 12, 2015, Chinese and other delegations signed the *Paris Agreement* together in Paris, France. China's the Standing Committee of the National People's Congress (SCNPC) approved the accession to the *Paris Agreement* on September 3, 2016, and China became the 23rd contracting party completing ratification for the agreement. The Paris Agreement came into effect on November 4, 2016. This is a historic turn in fighting against climate change. The Chinese people are making a positive contribution to slowing global warming, and establishing environmental anthropology with Chinese characteristics is an academic example (Gao, 2016).

ENVIRONMENTAL ANTHROPOLOGY WITH CHINESE CHARACTERISTICS

The Chinese nation has a long history and the national excellent traditional culture delivers rich information, which has a dedicated support for the development of environmental anthropology. For example, Lao Zi (571 B.C. - 471 B.C.), a famous scholar in ancient China, put forward the theory of "learning from nature", whose influence has been passed on for thousands of years to this day (He and Chen, 2012). The religious culture inherited by Chinese Tibetans from the thousands of years of history

shows the idea of “holy mountains and sacred lakes”, which reflects the concept of the Tibetan people’s love of nature.

In contemporary society, some scholars emphasize that the market economy should be applied in environmental protection to encourage environmental protection activities, and punish the behavior of pollution at full blast. Some scholars have extensively studied the relationship between environmental construction and ethnic characteristics in the minority areas in western China and achieved a lot of positive results. Some scholars studied the grassland and livestock contracting system of the “Gacha,” which is a traditional call of administrative village of Mongolia ethnic group, in the northern edge of the Maowusu desert in Inner Mongolia Autonomous Region and put forward the concept of nature capitalization (Hou, 2017).

The terrace fields built by the Hani ethnic group in the border area in Yunnan province have been successfully applied for the listing of World Cultural Heritage, and scholars suggested that those kinds of terrace fields be “a cultural characteristic of harmony between the Hani people and nature.” The Chinese central government formulates a national strategic plan for economic, social and cultural development every 5 years. In the outline of the Eleventh Five-Year Plan(2006—2010), China’s State Council clearly put forward the strategic goal of constructing “ecological functional zone” for the first time, and the western areas being concentrated by the population of ethnic minorities were the key construction regions (Li, 2017).

In the outline of the Twelfth Five-Year Plan(2011—2015), the State Council has also proposed a strategic goal of “ecological functional zones”. For the outline of the Thirteenth Five-Year Plan (2016—2020)being implemented now, there is a key development goal for building the beautiful China of ecological civilization. Scholars have come up with more and more specific policy proposals and innovative theories regarding the overall implementation of production and construction (Geng, 2017). In short, protecting green hills and clear waters is just as to get mountains of gold and silver.

The main theses of this study are adapted to the needs of China's major strategies and discuss the relationship between the long-term stable development and the natural endowments of minority areas. Ten days before the Copenhagen Global Climate Change Summit on 7-18 December 2009, China's State Council announced the national carbon reduction target: the carbon dioxide emissions per unit of GDP in 2020 would be reduced by 40% to 45% compared with those in 2005, showing that China is a responsible power (Liu and Liu, 2017).

On June 28, 2016, at the First China-EU Low-carbon Cities Conference held in Wuhan of the largest city in central China, China's special representative for climate change, Mr. Xie Zhenhua, announced an official message. During a period of 2011—2015, China had come true the cumulative decline of about 20% in carbon intensity, and non-fossil energy accounted for 12% of the total energy consumption in 2015, all of which exceeded the target of the Twelfth Five-Year Plan. By the end of 2015, China's renewable energy capacity had accounted for a quarter of the world, the new installed capacity of renewable energy had accounted for a third of the world, and China did best to make a positive contribution to the global response to climate change (Zeng and Sun, 2011).

At present, the governments and productive units across China have continued to step up efforts to implement a series of carbon-reduction plans. The main research contents showed by the study is closely combined with the national strategies, expounds the concrete countermeasures for establishing a low-carbon economy.

The western regions in where China's ethnic minorities lived with relative concentration show two distinct characteristics. Most of the lands of the Qinghai-Tibet plateau lie on Chinese territory, for example, the plateau not only is the “river sources” and “ecological sources” but also the home town where ethnic minority groups like Tibetan people, Qiang people, and Tu people have lived from generation to generation (Zhang, etc., 2014).

The Chinese government has implemented the compensation mechanism to protect the ecological environment in the ethnic areas with getting obvious effect in some degree. However, we still need to seize the opportunities of the current international community to focus on the ecological environment and

carry out carbon trading activities. Meanwhile, we also need to promote the excellent content of protecting the environment in the traditional culture of the ethnic groups, so that the people in the minority areas can exchange fresh air for real gold and silver (Wang and Tian, 2014).

We should extend the link between economic activities and environmental protection from the ground to the air and from home to abroad. Therefore, we advanced the suggestion about strategic deployment policy towards speeding up the economic development and creating a new situation of social stability, environmental friendliness, and ecological civilization in the western minority areas. Compared with the same kind of academic works that have been published at home, the innovative content and features of this study are mainly reflected in the following aspects:

First, put forward the concrete ideas and suggestions for establishing the mechanism structure for environment protection with multi-party participation and economic production win-win operation. According to the characteristics of the ethnic minority areas in the West, we will build regional carbon sink functional zones, establish a low-carbon economy system, and save energy and reduce pollution at a new level. Therefore, we should, through the methods of environment trade, solve the problem of missing carbon sink, open new channels on economic development, make the invisible ecological products to realize their value of labor successfully in the market, and explore the ways for leading farmers and herdsmen to obey the eco-cycle rule and achieve the goal of being well-off. To promote the environmental culture of different ethnic minorities is conducive to the maintenance of ecological diversity (Wang and Mao, 2011).

Second, Present the proposals of developmental strategy to promote the excellent traditional culture of ethnic minorities and economic growth within environmental protection. We believe that the integration of ethnic culture and economy are emerging as a new trend in the global action against climate change. Compared with eastern China, there are large tracts of forests and grassland and abundant regional carbon sink resources in the western minority areas. We should make full use of the Copenhagen Accord to respond to global warming and the same resolutions adopted by the UN Climate Change Summits held later such as the Canc'un Agreement on December 12, 2010 and the Durban Agreement on December 12, 2011. Especially following the Paris Agreement, we should open the natural resources of the ethnic areas in a protective manner. The minority nationalities in western China are used to operate some special effective methods for protecting the environment. To seek these simple and efficient ways of environmental protection and to improve consistently the economic benefits within the ways, it will be very helpful for us to achieve the 2020 carbon emission reduction target of the State Council, thus making contribution to maintaining the benign ecological cycle of the global environment (Zhang, 2017).

Third, put forward the strategy for operating and managing the environment resource industry market. We should establish a new product manufacturing concept and produce more humane and natural products. We should pursue the industrialization and operation of ecological construction projects as well as the refining and branding of green product process, to maintain the harmony between social economy and nature. Traditional trades are tangible labor and economic products, while environmental transactions are intangible eco-labor products. Therefore, these new types of commodities cannot enter the traditional transaction and marketing in the traditional way. They are to be sold by establishing a new type of goods including nontraditional trading structure, rules, and new methods. At the same time, some of the trading rules used in the market economy are also able to apply to the trading of carbon sink type goods (Peng, 2017).

Fourth, come up with the basic concepts of environmental anthropology. To establish a theoretical system of “environmental anthropology” with Chinese characteristics, we propose a scientific method of thinking including concepts, theories, and structures. For example, we researched the cases of influencing and leading people to build the styles of production and life in harmony with the environment by changing the energy structure, thus making contribution to slow global warming. Meanwhile, we learned the good experiences in environmental protection from North America, introduced some innovative ideas and theories, and studied some lessons from failure. Environmental anthropology is a new discipline in China. Though its distinct feature is to study the construction of environmental protection in the minority areas of China, it should also learn the cultural wealth of all mankind. For example, we should study the

research results of North America's environmental anthropology and carry out digestion, absorption, and innovation. The construction and development of environmental anthropology can regulate the relationship between human and natural environment from many aspects and encourage mankind to protect the environment consciously (Sheng, 2017).

SUMMARY AND CONCLUSION

In modern China, some major special projects have been commissioned. Such as the project of *Characteristic Economy of Tibet: Research on the Development of Agriculture, Animal Husbandry, Tourism and Mining Industry in the Next Five Years* funded by the National Social Science Fund of China in 2011, the project of *Research on the Tibet Regional Carbon Functional Area Construction, Carbon Trading Structure Design and Implementation Countermeasures* funded by the Chinese Ministry of Education in 2010, the project of *Joint Fund Project Approval on Comprehensive Reform Items of Specialty Industry-Academy Cooperation and National University Students' Innovation and Entrepreneurship Training Program* funded by Bureau of Higher Education and Chinese Ministry of Education in 2015. This project has two items: *The Three Departments of Three Universities of China and India Jointly Establish Internet Courses of Economic Development and Environmental Protection* and *Student innovational teams of the Three Departments of Three Universities of China and India on economic development and environmental protection* (Wang and Tian, 2014).

Through some systematic analysis, we believe that the correct handling of the issues concerning economic construction and environmental protection will be conducive to the sustained, stable and harmonious development in the vast ethnic areas of western China. Therefore, the new era development requires that the Chinese scholars to learn, to absorb and to innovate some of the valuable theoretical and practical methods of modern western environmental anthropology for creating and developing the environmental anthropology with the Chinese characteristics.

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