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## Practical significance of ecological ethics in buddhism to continuous development of ecological environment

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### ABSTRACT

Among numerous ecological problems, damages caused by the animal husbandry has not been treated seriously enough. In terms of solving the ecological environmental crisis, not only various external efforts are required, but also people's behaviors and habits shall be effectively standardized. In this way, people would develop the awareness as well as desirousness of ecological environmental protection in the spiritual level. In the dissertation, based on the analysis on ahimsa advocated by Buddhist perspectives of equality and mercy, practices relating to Buddhist ahimsa is expounded, thereby basically reducing the scale of animal husbandry as well as realizing the sustainable development of ecological environment.

### KEYWORDS

Ecological view in Buddhism; Animal husbandry; Greenhouse effect; Vegetarian culture; Ecological environment.



## INTRODUCTION

Ecology was first put forward by German biologist Ernst Haeckel in 1866. As people had acquired increasingly mature understanding about ecological environmental crisis, in the 1960s, ecology served as not only the theoretical basis in providing guidance for people to solve ecological environmental crisis, but also an important means in acquiring spiritual and moral support. A key feature of ecology is the opposition to anthropocentrism. According the theoretical system of ecology, every person is only a point within, which is of equal importance with other elements. Hence, “the idea that human being, in essence, is superior to other species, is entirely groundless; it is only a ridiculous prejudice employed by human so as to seek benefits.”<sup>[1-109]</sup>

Besides the researches on ecology conducted by ecological scientists, there are also ecological ethics thought contained naturally in various religious cultures around the world. As mankind has more desire and practices to conquer the nature, humanism thought as well as centered consciousness of mankind are becoming increasingly strong, which has aroused the attention of some theologians in the western countries. In the 1960s, large-scale ecological theological movements were developed in the religious circles of the western countries, which reached its climax in the 1990s. Facing the classic doctrines of the Bible, these theologians can duly provide creative interpretations. Besides, spiritual resources contained in the Bible, which can assist in saving current ecological crisis, are explored to the utmost degree.

Comparatively speaking, traditional Confucianism, Buddhism and Taoism in China show more respect for nature in terms of the relation between human being and ecological development, in which process great reverence is showed for nature. With the representative idea of “Environmental Protection of Human Psyche” put forward by Master Sheng Yen in Taiwan, the earliest research concerning the combination of Buddhist traditional philosophy and ecological thought in China originated from the academic circles in Hongkong and Taiwan. There are also such perspectives as deep ecological thought within human Buddhism, observing the environmental protection concept & its practice from religious ecology, as well as Buddhist ecological philosophy and modern ecology awareness put forward by Yang Huinan, Lin Chaocheng and Fang Litian (Scholar from Mainland China) respectively<sup>[2]</sup>. However, generally speaking, researches on Buddhist ecological thought from the academic circles of Mainland China put more emphasis on the summary of the overall thought thereof and there is lack of thorough study for specific questions.

Among the researches on Buddhist ecological ethics, the major research contents include such doctrines as “origin theory” “holism” “selflessness” “pure land on earth” “karma theory” “mercy theory” as well as “equality theory”, in which “the origin theory” serves as the basis of Buddhist ecological view as well as the most universal subject for relevant researches. Based on “the origin theory”, the “holistic view” of Buddhism has proved a fact that the whole universe is located in a relative network which cannot be separated. Besides, there are numerous discussions about such perspectives as “selflessness” “pure land on earth” “karma theory”, whereas the discussions relating to “equality theory” and “mercy theory” only involve the level of “all creatures, living things or not, have the Buddhist nature.” The function only involves the perspectives of wildlife protection as well as biodiversity. However, there are few discussions concerning the relationship between the perspective thereof and animal husbandry. In the dissertation, based on the analysis on “mercy theory” as well as “equality theory” in Buddhist ecological ethics, influence exerted by practices concerning ahimsa on the sustainable development of ecological environment has been expounded, which will have a positive effect on easing animal husbandry crisis, thus rendering profound practical significance and practical value.

### THE INFLUENCE EXERTED BY THE DEVELOPMENT OF ANIMAL HUSBANDRY ON ECOLOGICAL ENVIRONMENT

In the 1960s and 1970s, for the highlighted environmental problems on earth, knowledgeable scientists have carried out researches and gave out warnings to the mankind. The large-scale use of

fossil fuels, excessive consumption, blindly rapid growth of animal husbandry, deforestation, soil erosion, deteriorating ecological regeneration ability and environment capacity imbalance have already overwhelmed the earth. In recent years, there have been frequent natural disasters around the world, abnormal climates in many areas, highest temperatures since the first recorded ones in many cities, continuous droughts, floods and typhoons. However, people always regard them as “an act of God”, about which people feel helpless and at a loss what to do. Among these ecological environmental problems, people paid more attention to the environmental problems brought by industry, energy and traffic, but not enough to the ones caused by animal husbandry.

### **Environment load of animal husbandry on land and water**

The development of animal husbandry has contributed to the occupation of a large number of land, which have been turned into pastures and farms used to grow feed for livestock. 95% of the soybeans in South America have been used to feed the livestock in the two continents of Europe and Asia, and the forest has given way to farms and soybean fields. Since the 1960s, the Amazon rainforest already shrunk by 20%. A scientist has dramatically mentioned that the Amazon rainforest had been pressed into a piece of meat pie. The world's fourth largest island of Borneo Island, which is covered by primeval forest, will disappear in 10 years due to the cut down caused by animal husbandry. Moreover, “meat belongs to carbon intensive product, and the production of 1 kilogram of potatoes requires 100 kilograms of water, 1 kilogram of rice requires 4000 liters of water, 1 kilogram of beef requires 13000 liters of water; 50% of the global consumption of water is consumed by global animal husbandry and aquaculture. The groundwater resources have become increasingly dried up in arid areas in America, Australia and many other countries due to livestock breeding<sup>[3-73]</sup>”.

### **Environment load of animal husbandry on greenhouse gases**

Many people believe that global warming is caused by carbon dioxide discharged from industry and transportation industry. However, it is little known in recent years that the rapid and inconsiderate development of animal husbandry has brought harm far beyond people's imagination. According to data released by the United Nations Food and Agriculture Organization in November 29, 2006, animal husbandry is the primary factor to have caused global warming. In November of the same year, “Animal Husbandry and Climate change” in the World Watch Magazine has said that “livestock and their byproducts have actually dismissed at least 32.564 billion tons of carbon dioxide equivalents, accounting for 51% of the world's total”<sup>[4]</sup>. The World Bank environmental expert Robert Goodland has conducted estimation again in 2009 and confirmed that at least 51% of anthropogenic greenhouse gas emissions are from animal husbandry<sup>[5]</sup>.

The carbon dioxide discharged by a cow from breathing in a year is equivalent to that of a car traveling 70000 kilometers, the global livestock breath out 8.769 billion tons of carbon dioxide equivalents a year, which accounts for 13.7% of the global greenhouse emissions.

In addition, methane, the second major greenhouse gas, comes mostly from animal husbandry, whose warming degree is 71 times higher than that of carbon dioxide. Although the greenhouse effect of methane is 71 times greater than that of carbon dioxide, it will be undetectable after 10 years of its existence, while carbon dioxide remains in the atmosphere for 500 years<sup>[6]</sup>. Therefore, the key to solving the greenhouse effect lies in methane, and livestock is the main cause of methane. Professor Dr. Kirk Smith from California University said: “Of course, we must solve the problem of carbon dioxide emissions, but if we want to reverse the problem of climate change over the next twenty years, we should manage to reduce the greenhouse gases that have short retention period, of which the most important is the methane”<sup>[3-74]</sup>. The influence of livestock on the greenhouse gas comes from not only livestock feeding, but also the frozen or refrigerated processing after the slaughter and in the whole process of selling. The concentration of fluorocarbon used in refrigeration equipments is 1000 times that of carbon dioxide. The cooking time and heat of meat food is longer and higher than the non-meat food.

### **Development of animal husbandry and ecological civilization**

The faster the economy develops, the more meat will be consumed. According to the survey by the Compassion In World Farming (CIWF), the global meat consumption increases significantly, over

the past 40 years, the per capita consumption of meat in Europe has risen from the annual 56 kilograms to an annual of 89 kilograms, while, in America, it has increased from an annual of 89 kilograms to an annual of 124 kilograms, and in China, it increased from 4 kilograms to 54 kilograms and will continue to increase<sup>[7]</sup>. Human preference for meat prompt the growth of global animal husbandry scale year by year and the rapid development of animal husbandry would bring about a lot of carbon dioxide and other greenhouse gases, gradually increasing the earth's temperature. The higher the concentration of carbon dioxide in the atmosphere, the more heat it will absorb from the sun. At the same time, the heated seawater will seriously affect the living environment of the extremely sensitive coral reefs and plankton; if they die, the seawater will no longer release oxygen but emit carbon dioxide, which is bound to create a vicious spiral, further warming the earth. The heated ocean will cause violent storms, greatly damaging people's life and property. For example, in 2009, America encountered hurricane Catherine. Global warming will fasten glaciers melting, if the Arctic melt, sea levels will rise 5 meters, and as a result, the coastal areas and cities will be threatened. What's more serious is that the large amount of methane remains in the permafrost in Arctic, Greenland and Siberia from ancient times would leak out with the collapse of permafrost, if hundreds of billion tons of methane is exposed to the air, its consequences will be unimaginable.

At present, concentrations of carbon dioxide on earth has reached the maximum over the past 0.65 million years, and the extinction rate has been 1,000 times of the former one in record<sup>[8]</sup>. Bill McGuire, natural disaster expert in UK, holds the viewpoint that, "the year 2015 will be the turning point for the earth's fate; in case the emission rate or amount of greenhouse gases cannot remain stable before the tuning point, the earth would suffer an irreversible vicious circle by July, 2015; in the middle of the present century, the desert would continuously extend, sea level would rise, hurricane would sweep the Pacific Ocean, the jungle would vanish, and the number of climate refugee would reach 1 billion<sup>[9]</sup>."

Mark. Lynas, a British journalist once published a research report named Six Degrees after the third assessment report was put forward by Intergovernmental Panel on Climate Change (IPCC) in 2001. The research report was generated through checking numerous materials through a whole year and many research results were summarized. In the report, the resulting catastrophes results from the rising temperature (six degrees higher) on earth were explicitly indicated. One degree centigrade higher, ice and snow on the Africa will all gone, and such polar animals as polar bear as well as sea elephant will disappear from the earth; two degrees higher, Greenland ice field will vanish with the sea level rising for about 7 meters; three degrees higher, Amazon rainforest will ignite due to excessive methane and diethyl ether, when tens or even hundreds of millions of "environmental (climate) refugee" will migrate from arid area to middle latitude area; four degrees higher, the ice cover of the whole Arctic Ocean will vanish with the sea level rising for another 5 meters, whereas the summertime temperature around London will reach 45 degrees centigrade; five degrees higher, there will be no ice and snow at all, and large-scale species extinction will occur in the ocean and the tsunami will destroy the seashore; six degrees higher, 95% of species including human being will be extinct."<sup>[10]</sup>

In terms of the severe consequence, environmental issue has become global problem relating to saving the planet as well as the human being. Besides, similar as energy conservation and emission reduction as well as low carbon economy, the proper understanding and scientific plan for animal husbandry causing serious impact on ecological environment has become an important move in easing global warming.

## **ECOLOGICAL ETHICS AND ECOLOGICAL SUSTAINABLE DEVELOPMENT IN BUDDHISM**

The most effective method to bring down the scale and amount of animal husbandry is vegetarian diet. With vegetarian diet as one dietary mode for human being, pure vegan is highly praised by the Buddhism, namely the abandonment of eggs as well as dairy products besides meat. The habit

originated from the religious thought of Buddhist mercy and equality. As a healthy and environment-friendly dietary mode, it has been accepted by more and more people.

### **Equality and mercy perspectives in Buddhism**

The concept of vegetarian diet originated from the understanding about equality among all living creatures. In Buddhism, ordinary people are classified into six kinds, Nature Law, Asura Road, Humanity, Beasts Road, Hungry Road, Hell Road, Despite of the difference, they are all endowed with Buddhata in their essence, thus being equal. Besides, according to Buddhism, the six realms of existence are in rotation, in which living creatures are mostly parents and children for each other. Hence, how can they eat one another? The concept of equality among living creatures has led to the reflection on mercy. Based on Buddhism, all living creatures are eager for lives and happiness instead of death and pains. Therefore, how can we deprive them of their lives facing the same wishes and fears? As a result, ahimsa has become the first fundamental religious discipline in Buddhism. According the discipline, people cannot or instigate others to kill. Besides, the delightfulness originating from the killing executed by others would be regarded as violation of the doctrine. According to Volume 13 of Mahaprajnaparamita Upadesha, murder is the most serious crime among all whereas ahimsa has become the utmost virtue among all. Based on Lankavatara sutra, most of the killings are for people's eating; without this kind of eating, there would be no killing. Hence, eating meat equals the crime of killing<sup>[11]</sup>. As Chinese old saying goes, "meat-eating people are brave and strong while gain-eating people are wise and clever." It shows that vegetarian diet is beneficial to people's temperament. Einstein, a famous scientist as well as vegetarian, mentioned that the change and purification of vegetarian will greatly benefit the human being<sup>[12]</sup>. In general, driven by the thought of protecting lives, protecting temperament and protecting the heart, Buddhism followers are not allowed to eat meat; meanwhile, the perspective of ahimsa has become the main content among the practical activities of modern Buddhism.

### **Practices of ahimsa**

What Buddhism advocates is the concept of ahimsa and mercy, which can be borne in the cockles of the heart through in-depth understanding of Buddhist doctrines and practices. One important method is to "behave as a mater", namely treating practitioner himself as the mater of all living things. According to Lamrim Chenmo, the mater would suffer the illness, bitterness or death which could be tolerated by the children. Only by bearing the role or concept in mind can the practitioner be provided with the mercy, which will then lead to the courage and will to salvage all the living creatures, including animals.

In China, many monarchs once issued the government decrees requiring ahimsa. For example, according to Buddha statistics, Emperor Wen of Liang, Emperor Wen of Sui, Emperor Xianwen of the Northern Wei Dynasty as well as Emperor Song Zhenzong all gave relevant orders. Emperor Suzong in the late Tang Dynasty once issued an imperial edict in 759 AD, requiring building pools to free captive animals in such places as Shannandao, Jiannandao, Nanpingdao and Zhejiangdao. In 1017 AD, Emperor Song Zhenzong issued an edict of rebuilding the pool<sup>[1-112]</sup>. In Tibet, "fete for spirits is advocated by local religions. During the fete process, sacrificial rites are conducted with animals as the offerings. Relevant contents can be found in such books as Tibetan bamboo scripts, old and new Classics on Tibet, Biography on Yeshe Gyamtso in Tibetan language. It is recorded in the books that sheep, dogs, macaque, horses as well as cows are sacrificed as offerings. Besides, according to Biography on Yeshe Gyamtso, astonishing number of creatures has been killed, i. thousands of deer, goats, sheep, as well as yak are slaughtered frequently during the worship ceremony."<sup>[13]</sup> When Buddhism was introduced into China, the slaughtering traditional was transformed, thus abating the "blood sacrifice" in most areas eventually.

### **Ecological civilization and sustainable development**

Research report issued by Commission on Sustainable Development has pointed out that, world-wide vegan without any meat, egg and milk is an inevitable choice so as to save the planet from worst strike of famine, energy deficiency and climatic variation. As estimated, population in the world will

reach dramatically to 9 billion in 2050 whereas western diet with meat and dairy product will lose its continuity<sup>[3-74]</sup>. In contrast, in case vegan diet without meat, egg and milk is adopted, methane, nitric oxide, and carbon dioxide will decrease by 37%, 65% and 9% respectively. It can be seen that vegan turns the fastest as well as most practical emission reduction method. At present, Nov. 25 of each year has been defined as World Vegan Day. There are over 12 million vegans in US; members of vegan association in Canada have doubled in the past five years; there are already 7 million vegans in UK, while the number increases at the a speed of 2,000 people per week. Vegans can indeed play a great role in respecting animal lives, reducing scale of animal husbandry, eliminating hunger and poverty as well as slowing down global warming and reducing environmental pollution despite of the real causes of ethic and health for westerners, thereby buying time for inventing and employing new alternative energy so as to ease climatic crisis.

**TABLE 1 : The Statistics of Greenhouse Gas Emissions by Animal Husbandry**

Category	Other Greenhouse Gas Emissions per year (10 billion tons of carbon dioxide equivalents)	Percentage of global emissions
Estimation by United Nations Food and Agriculture Organization	7516	11.8
1. The Ignored Emissions from Livestock's Breathing Out	8769	13.7
2. The Ignored Emissions from Land Use	≥2672	≥4.2
3. Underestimated Methane Emissions	5047	7.9
4. Other (updates and revisions of four categories of data)	≥5560	≥8.7
5. Greenhouse Gas Emissions wrongly categorized into other departments	≥3000	≥4.7
6. The total Greenhouse Gas Emissions of livestock	≥32564	≥51.0

Source: *Livestock and Climate Change*, Word Watch Magazine.2009, (11/12):11.

## CONCLUSIONS

The ahimsa perspective in Mahayana once exerted positive effects on ecological environmental protection as well as species diversity. In terms of the severe ecological environmental problems nowadays, especially the inconsiderate development of animal husbandry, ecological view of advocating Buddhism is of great practical significance. The ancient people once questioned about "what under the three inches". People would enjoy the food and delights from mouth to throat at the cost of ecological crisis, for which descendants are faced with the anxiety of being destroyed. What an unwise move! Solving the problem of ecological crisis requires various efforts of ordinary people. However, out of the revere for religion and longing for power, a spiritual foundation of certain senses of responsibility, obligation as well as mission can be provided for human and all living creatures in the nature concerning their the harmonious coexistence and sustainable development. Hence, it is of profound significance to summarize, deduce and follow ecological view in Buddhism. Sticking to the fine traditions of traditional ecological view in Buddhism will certainly exert positive effects on global ecological environmental protection in the future.

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