

Capitalism and Ecological Crisis

Yonghong Zhang

School of Marxism Studies, Research Center for Marxist Theory, Southwest University, Chongqing, China

Ecological crisis facing humanity began to emerge while entering the historical stage of capitalist development. Today's ecological problems are caused by the logic of capital gains. The capital's mercenary nature and the unlimited expansion trend of capitalist production will not only inevitably lead to the outbreak of the cyclical crisis of capitalism, but also to tremendous consumption and destruction of the natural environment and ecosystem. With the development of history, the capitalist system has been farther away from the natural historical process of human society, and put the development of human society into a horrific and dangerous situation, which, if neglected and unresolved, will ultimately destroy human civilization in the dual contradictions and conflicts of nature and man. The essence of socialism makes it a system possessing forces beyond capitalism. It can go beyond immediate interests and local interests, overcoming both the social crisis and ecological crisis of capitalism.

Key Words: Ecological crisis, capitalism, mode of production, social order, socialism

Introduction

Throughout the history of human development, the increasing environmental depredation almost synchronizes with the capitalist industrialization and modernization process. In the context of economic globalization, a research on ecological crisis can't be separated from the analysis of the nature of capital. As the core driving force of capitalist development, capital has unlimited desires for the pursuit of profit. The greed of capital results in conflicts between material wealth and humanism, and struggle between tool rationality and ecological civilization. Under the action of capital, the natural ecological balance has been greatly damaged, if left unchecked, the human society will face a more serious ecological crisis.

Nature provides the human society with environmental support. If the traditional development model of capitalism should be taken, the material needs of capital would be gradually approaching the load limit of the natural environment and the degradation of natural environment would be likely irreversible. Especially in the context of economic globalization, the modernization process led by industrialization and urbanization has seriously violated the natural ecological balance, triggering an unprecedented ecological crisis and the deterioration of the natural environment. Exploring the relationship of capital with the deteriorating natural environment and seeking the harmonious development between man and nature has become a common challenge the world faces.

The Ecological Crisis Intensifies

Earth is our home, which provides us necessary environment and living space. Ecological crisis is actually a crisis of survival and the principal contradiction between man and nature. From a global perspective, many countries have experienced ecological crisis. 250 AD was the heyday of Mayan civilization, but around 800 AD it began to collapse because of the deterioration of the ecological environment. Similarly, the Babylonian civilization was destroyed by ecological crisis: The Babylonians had invented the cuneiform, the Code of Hammurabi and 60 hex timing method, and had also built one of the world's seven wonders "the Hanging Garden". Babylon was once the world's largest city, but its civilization disappeared in the end.

Ecological crisis will inevitably result in the destruction of species. Different species on the planet are all indispensable members of the planet's ecosystem. Extinction of a species would affect the survival of 30 species at least, and even affect the ecological balance of the entire planet. However, due to human overbearing, many species have disappeared or are on the verge of extinction. According to scientific statistics, an average of more than 70 species disappear forever from the earth daily; more than 9400 kinds of plants and animals in the world face extinction. Well, who will be the last species on earth? Zoological Society of London co-editor Jonathan Loh said: "We are acting ecologically in the same way as financial institutions have been behaving

economically-seeking immediate gratification without due regard for the consequences. The consequences of a global ecological crisis are even graver than the current economic meltdown.”

Forests are the main body of the terrestrial ecosystem, which play a decisive role for maintaining the ecological balance of the land. Early humans on Earth grew 8 billion hectares of lush forests, while for now, only 2.8 billion hectares exist. “The Earth's lungs”-forests, have already been amputated by 2/3. Moreover, the world's forests are disappearing at an annual rate of 16 million hectares, almost half of the area of Germany. If forests continued to disappear at this rate, it would be likely that the earth would become “bald” someday. If a country's forest coverage rate reaches 30% or more, and forests are evenly distributed, the weather will be favorable and the crops doing well. However, due to people's greed and ignorance, the world's forests have long been damaged. Drought, famine and desertification give out a warning to all mankind. Desertification in Africa is not a natural formation process but a consequence human beings must take. Africa was rich in forest resources in the past, however, Africans have long used fire woods as fuel and the short-sighted action of lumbering in a destructive manner has destroyed vegetation, and caused soil erosion. Secondly, the plundering of Africa's forest resources by the developed countries is another reason of the African ecological imbalance.

However, the development of emerging economies is always accompanied by plundering of forest resources. Devastating deforestation is around the world. FAO (Food and Agriculture Organization) reported that from 1991 to 1995, 126,000 square kilometers of tropical rain forests were burned or cut down each year. U.S. Time Magazine reported that 80 percent of the original forests on the planet have been felled and destroyed, most of the drinking water has been seriously polluted, and the majority of wetland degraded and disappeared.

On March 21, 2006, the 25th World Forestry Day, the international environmental organization Greenpeace released by far the most accurate forest satellite map, which told people that primeval forests were only less than 10% of the land area, and 82 of the 148 countries within the forest zone completely lost the primeval forests intact, and the rest of the forests were still disappearing at a speed by which one football field vanishes every two seconds.

As early as 100 years ago, Engels, the author of *Dialectics of Nature* warned us that: “we should not be intoxicated with our victory against the natural world. For each victory, nature has retaliated on us. For each victory, we got our expected result indeed at the first step. But at the second or the third step, there are completely different and unexpected impacts, which

often eliminate our previous achievements”. In 1950, there suddenly appeared a strange disease in a fishing village called Minamata in southern Kyushu, Japan. This disease is called Minamata disease. It's a neurological syndrome caused by severe mercury poisoning. Symptoms include ataxia, numbness in the hands and feet, general muscle weakness, narrowing of the field of vision, and damage to hearing and speech. In extreme cases, insanity, paralysis, coma, and death follow within weeks of the onset of symptoms. A congenital form of the disease can also affect fetuses in the womb. Minamata disease was caused by the release of methyl mercury in the industrial wastewater from the Chisso Corporation's chemical factory, which continued from 1932 to 1968. This highly toxic chemical bio-accumulated in shellfish and fish in Minamata Bay and the Shiranui Sea, which, when eaten by the local populace, resulted in mercury poisoning.

On November 19, 2002, a ship carrying 77,000 tons of fuel split in half and sank into the sea. The spill polluted thousands of kilometers of coastline and more than one thousand beaches on the Spanish, French and Portuguese coast, as well as causing great harm to the local fishing industry. The spill is the largest environmental disaster in the history of both Spain and Portugal. Environmental scientists and many fishermen believed that the fuel remained in the sea would long pollute sea water and Marine creatures.

Climate change has major impact on ecosystem. With global temperature rising, there is a decrease in snow-fall, and sea levels are rising. Consequently, many species are being driven out of their habitats. We know that polar bears need ice for hunting seals. However, with ice caps melting, their hunting periods are becoming shorter and shorter. As a result, the polar bears can't develop enough fat for the winter. Climate change could also be devastating to aquatic life. The increase in temperature will disrupt the current life styles of creatures such as salmon and trout.

Nowadays, Extreme weather events become more and more frequent due to the warming trend. The heat wave that hit the Moscow area in 2010 was made five times more likely, as compared with earlier decades. Other instances of extreme weather such as the deadly European heat wave in 2003 and the serious drought in Oklahoma and Texas in 2011, have been shown to be connected to earth warming.

In addition, critical resource problems occur, for example, water availability for agriculture. It's believed that to grow one pound of grain, 500 to 1,000 pounds of water are needed. Countries short of water are searching for other regions to grow food for their people. Many people also believe that if a country is short of food, it should go to the “free” international market to purchase food. But with the rapid rise of

food prices on international markets in recent years, a number of countries have to have food grown abroad. The United Nations' 2013 Human Development Report says that without coordinated global action to avert this situation, the number of people living in extreme poverty might increase by up to 3 billion by 2050. The intensifying ecological crisis has posed a threat to the survival of mankind.

Capitalism is the Root Cause of Ecological Crisis

Before the birth of the capitalist mode of production, environmental problem was but a regional one, which, in most cases, had only a minor and partial negative impact on the human society. But, in several hundred years of capitalist globalization and in the process of "conquering nature" by the capitalist mode of production, the environmental problem has been becoming more and more serious and ravaging the world. Nature occasionally brings up its sword of Damocles and retaliates on humanity.

With the progress of the Western-dominated globalization, some global environmental problems become increasingly serious. According to 1998 data from World Wide Fund For Nature, the Earth lost 1/3 of the natural resources from 1970 to 1995; freshwater index decreased by 50%; the marine ecosystem index fell by 30%; the world's forest area declined by 10%. According to the UN Food and Agriculture Organization statistics, the annual tropical deforestation rate is about 0.7% and still in constant acceleration. Rain forest reduction results in floods and climate change, especially the rampant El Nino Phenomenon, as well as the destruction of biodiversity, and so on. The extensive use of Freon and other substances results in the growing Antarctic ozone hole, which makes creatures on earth facing more and more serious threat from solar ultraviolet radiation; massive emissions of carbon dioxide and other gases exacerbate the existing "greenhouse effect", causing global climate to rise and making glaciers melt and sea levels rise; the earth's organisms are being destroyed and desertification is developing rapidly. In this case, human beings are probably losing natural respiratory organs and their survival base.

That Hundreds of years of capitalist accumulation of capital has damaged or destroyed the natural ecological environment is obvious. No one has made specific statistics of this destruction. Today's economic and technological achievements the Western world has reached, result, in a certain sense, from the plundering of the Third World resources and destruction of the Third World ecology by the West monopoly bourgeoisie for several centuries.

The Western capitalist industrial civilization has created a global economy and brought the world into an unprecedented new era of rapid economic development, and has also brought unprecedented "ecological deficit" and "environmental overdraft" to humans, especially to the Third World. The price the Third World countries have paid for the development and prosperity of the West is innumerable. In a world with limited supply, the more the West demands, the less the Third World will be left, either in natural resources or social needs. The irrational and unlimited expansion of social product demands of the West has not only caused a lot of pressure on their own environment, but also lead to the destruction of the environment of the third world countries by recklessly plundering natural resources. Currently, the West, with 20% of the world's population, consumes 80% of the world's total resources and continues to leave the major negative impacts of ecological damages to the Third World. According to a World Wide Fund For Nature report on October 1, 1998, the world lost nearly 1/3 of the natural wealth from 1970 to 1995. Human production activities and consumption on natural resources such as land, minerals, fish, timber and fresh water, as well as emissions of carbon dioxide and other pollutants, have led to natural environment pressures, most of which have been caused by the Western countries.

The British magazine *New Statesman* issued an article on October 16, 1998 saying that "It's the poor that do the suffering...while the rich do all the protesting". The environmental toll of poverty is enormous and growing. All over the world, the poor account for the most deaths from pollution, and are by far the greatest victims of the degradation of the natural world. The wood consumption in papermaking in the 1990s only was twice as much as that in the 1950s. The consumption of paper products in U.S., Japan and Europe accounts for 2/3 of the world's total, while the lumber used comes almost entirely from the Third World. The best example might be that Japan has the highest forest coverage rate in the world, while its needs for woods are being met mainly through the rain forest deforestation of Southeast Asia.

With the enhancement of environmental protection consciousness and the improvement of environmental standards, some sunset industries with high energy consumption and heavy pollution in the Western countries are difficult to survive, so the Western developed countries capitalize the desires of the third world countries to eagerly develop the economy, to make cross-border transfers of pollution industries, resulting in the global expansion of contamination. The Third World countries thus become the "pollution havens". In order to pursue development, the Third World countries are forced to swallow the bitter pill of the ecological crisis

both at home and abroad. They have already got into trouble because of lack of resources and environmental pollution before achieving a high-speed, high-quality development.

U.S. futurist Alvin Toffler made a profound description of the capitalist ecological crisis caused by the capitalist civilization: "Never before did any civilization create the means for literally destroying not a city but a planet. Never did whole oceans face toxification, whole species vanish overnight from the earth as a result of human greed or inadvertence; never did mines scar the earth's surface so savagely; never did hair-spray aerosols deplete the ozone layer, or thermo pollution threaten the planetary climate". Toffler's description shows us the devastating ecological consequences brought about by the capitalist-led globalization.

Numerous facts have proved that the capitalist system is the real root cause of human environmental crisis. Awareness of this issue will affect the prospects for mankind. As the American scholar Paul Sweezy said: "Already, a very large section of the world's scientific community is fully aware of the seriousness of the ecological threat facing the planet, but what is not widely recognized is that the cause of the threat is capitalism itself. Bourgeois economics seeks to hide or deny this fact. No wonder. If it were generally understood, capitalism would soon be identified for what it is, the mortal enemy of human kind and many other forms of life on the planet. In these circumstances, our responsibility is not only to help the ecologists to get their message across, important as it is, but to convince the ecologists themselves as well as the public at large of the truth about capitalism, that it must be replaced by a social system that puts the life giving capacity of the earth as its first and highest priority. As the unfolding of capitalism's deadly consequences proceeds, more and more people, including 'bourgeois ideologists who have raised themselves to the level of understanding the historical movement as a whole,' will come to see what has to be done if our species is to have any future at all. Our job is to help bring this about in the shortest possible time".

A New Social Order is needed

Capitalism is an economic system that pursues endless growth, which requires the use of ever-greater quantities of resources. Thus, the tendency of capital is to violate the natural conditions, undermining the base on which ecological and human sustainability depends.

The global reach of capital is creating an ecological crisis all over the world. But, capitalism can't solve this problem by itself. Just as Brett Clark and Richard York (2008) clearly revealed: "A fundamental structural crisis cannot be remedied within the operations of the system". This is because

that "capital shows no signs of slowing down, given its rapacious character. The current ecological crisis has been in the making for a long time and the most serious effects of continuing with business as usual will not fall on present but rather future generations". "Capitalism is incapable of regulating its social metabolism with nature in an environmentally sustainable manner. Its very operations violate the laws of restitution and metabolic restoration. The solution to each environmental problem generates new environmental problems (while often not curtailing the old ones). One crisis follows another, in an endless succession of failure, stemming from the internal contradictions of the system". In this case, "if we are to solve our environmental crises, we need to go to the root of the problem: the social relation of capital itself, given that this social metabolic order undermines the vital conditions of existence."

Brett Clark and Richard York, then, came to a conclusion that to resolve the ecological crisis "requires a complete break with the logic of capital and the social metabolic order it creates". They are not alone in this conclusion. Professor Fred Magdoff (2013) stated more categorically that capitalism, "the system of the accumulation of capital, must go—sooner rather than later." He further pointed out: "just radically transcending a system that harms the environment and many of the world's people is not enough. In its place people must create a socio-economic system that has as its very purpose the meeting of everyone's basic material and nonmaterial needs, which, of course, includes healthy local, regional, and global ecosystems." This system, without doubt, will have the creation of a harmonious civilization as its goal; it will get rid of all the troubles and problems capitalism causes.

In Fred Magdoff's opinion (2012), the harmonious civilization exactly consists in socialism, in which economy and politics are under social control. It's characteristic of this civilization and socialism that communities strive for self regulation by meaningful democratic processes; self sufficiency for critical life needs; economic equality in which everyone has their basic human material needs—but no more—met; and application of ecological approaches to production, living, and transportation.

In construction of a harmonious civilization, to correctly handle the relationship between man and nature is closely related to human survival and development, and also involves the country's sustainable economic development. One of the main problems of the highly developed western countries is that they can't effectively handle the conflict between the boundless demands of man and the environmental carrying capacity and the finiteness of natural resources. Only by properly handling the relationship between man and nature, and scientific development and planned control, could we find a way out for the

future. This, indeed, is the very reason why humans take socialism as the necessary and inevitable alternative to capitalism.

Conclusion

Contemporary ecological crisis has caused a series of serious global problems: global warming, ozone depletion, acid rain, water shortages, soil degradation, solid waste pollution, species extinction, loss of forests and so on; All these problems have threatened human survival and development. The harsh reality forces people to re-examine the relationship between man and nature, rethink the behavior of human beings, to explore the root causes of the ecological crisis. The appearance of the ecological crisis is not only linked with natural relations in practice, but also with social relations. In the primitive communist society, people lived in the original relationship of equality and there was no interest differentiation. People worked together and enjoyed things together. In this social relationship, anti-human phenomenon generally didn't occur in nature, so there existed no ecological crisis. With the emergence of private ownership, the society split up into a variety of social classes, strata and groups, and each person could do anything for his own interests, thus inevitably strengthening nature's anti-human tendency and leading to ecological crisis. This situation has developed to its peak under capitalism. By its very nature, capitalism is an expansive system, so capitalism's pursuit of capital and value accumulation is limitless. To eliminate the ecological crisis, human beings must try to eliminate private ownership, class divisions, and interest antagonism. In such a social relationship, all the people's activities will be aimed at human free and all-around development, resulting in a harmonious relationship between man and nature, and in the long run, the ecological crisis will be controlled and overcome.

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