

CONTEMPORARY  
CHINA

# ECOLOGICAL CIVILIZATION OF CONTEMPORARY CHINA

By Cao Baoyin & Yin Wujin



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# Foreword

“We will resolutely declare war against pollution as we declared war against poverty.”

Obviously, the confidence, determination, ambition and the pragmatic attitude of the declaration have caused a strong emotional and value resonance with all Chinese. The person saying these words shouted the aspirations that every Chinese has been looking forward to for a long time, which also reflects the reality of urgency to solve pollution problem.

Who said those words at what time in what occasion so categorically vowing to treat pollution with iron hands? It's Li Keqiang, prime minister of the State Council of People's Republic of China. On the morning of March 5, 2014, in the Great Hall of the People in Beijing, at the opening ceremony of the Second Session of 12<sup>th</sup> National People's Congress, Li Keqiang showed his determination to treat pollution when making report on the work of the government on behalf of the current central government.

As he put it, “Fostering a sound ecological environment is vital for people's



lives and the future of our nation. Smog is affecting larger parts of China and environmental pollution has become a major problem, which is nature's red-light warning against the model of inefficient and blind development. We must strengthen protection of the ecological environment and resolve to take hard measures to complete this hard task.”

Premier Li Keqiang has given the most authoritative answer. With two words of “hard”, he expressed his uncompromisingly great courage and determination. Therefore, we can understand how arduous China’s ecological civilization construction is and how serious the contradiction of the environmental pollution is so that it won’t be solved without the hard measures.

Just viewed from the aspect of energy consumption, let’s look at a simple set of data: Total primary energy consumption in China in 2012 was equivalent to 3.62 billion tons of standard coal, accounting for 21.3% of the global total. The consumption of unit GDP was as twice as that of the world, and 4 times as that of the developed countries. Even if the "Twelfth Five-year Plan" controls the GDP growth around 7.5%, the estimated total primary energy consumption will be 4 billion tons of standard coal in 2015 and 4.5 billion tons in 2020.

If we keep going the way of “extensive development”, China's resources and the environment will not be sustainable. This also indicates that despite of continuous decline of energy consumption and somewhat reduction of total amount of pollution discharge due to the strict assessment indicators implemented from national to local governments and from industry to enterprise, the rapid development of economic activities is exerting more and more pressure on resources and environment; the industrial growth remains over-reliance on investment in material resources; and the deterioration of the ecological environment has not been effectively curbed.

It is the Chairman of China Federation of Industrial Economics Li Yizhong, rather than others, who drew above conclusion and clearly expressed his concerns. On July 30, 2013, at the “Caring for Climate China Summit” hosted



Li Yizhong, Chairman of the China Federation of Industrial Economics, deeply concerned about China's ecological environment problems.

by Global Compact Network China, outspoken Li Yizhong frankly and sharply expressed his above opinion.

The opinion that “ecological environment deterioration hasn’t been effectively curbed” had already been expressed by a more authoritative institute 7 years before Li Yizhong made his speech.

The day of June 5, 2006 was the 35<sup>th</sup> World Environment Day. On that day, the former State Environmental Protection Administration published the document *Nature and Ecology Conservation in China* for the first time, which made a comprehensive introduction to ecology conservation in China. In this authoritative document, the related responsible person of the administration clearly pointed out that the government of China has attached great importance to ecological environmental protection and construction, taken a series of strategic measures and intensified the efforts on ecological environment protection and construction, and the environment in some key regions has seen improvement,

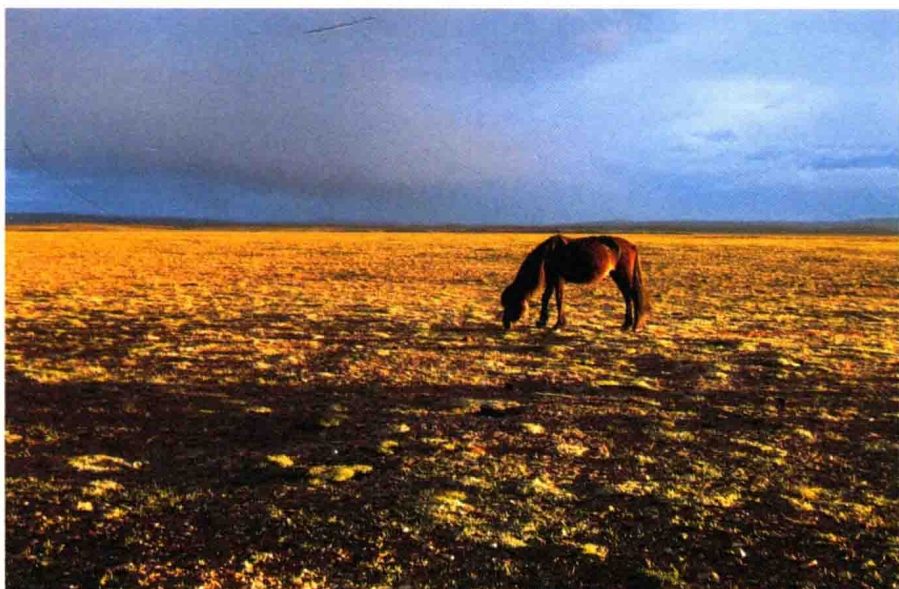




but the per capita resources in China is in short and varies from place to place, the ecological environment is fragile, and “ecological environment deterioration hasn’t been effectively curbed”.

But how exactly serious is the environment deterioration in China?

Let’s have a look at another set of data: In 2000, the national environmental quality evaluation result showed that nearly one third of land of China was good in ecological environmental quality and another one third was in poor or worse condition. The 6<sup>th</sup> national forest assessment results showed that the forestry area and the growing stock got increased and the forest quality got improved. But the problems of shortage of total resource amount, unequal distribution, low quality, and over-exploitation still existed; natural prairie of China shared 41% of the national territorial area, but 90% of it suffered from degeneration and desertification, which has been the main reason of windy and dusty weather; wetland area of China ranked the first in Asia, and fourth in the world, and 40% of it were under good protection, but serious reduction, degeneration and disappearing of wetland were still regrettable. Arable land accounts for 12.7% of China’s land area, and it is an important component of terrestrial ecosystem. But during agricultural production process, slather of chemical fertilizers, pesticides, agricultural film have some negative influence on agricultural productivity and the surrounding natural ecosystems. China's sea area is of about 1/3 of land area. But due to rapid population growth in coastal areas and rapid economic development, coastal beaches, wetlands, ecological destruction has been intensified, and the overall pollution of waters has not been improved. China is one of the countries with the largest desert, which is mainly located in the northwest arid area. Excessive use of plant and over-exploitation of upstream water resources of inland rivers have led to ecological deterioration and desertification. Chinese urban green area continues to expand, but problems of shortage of water resources in the city and small urban green area and poor function still exist. The "dirty, chaotic, and poor" phenomena still exist. Issues of



In the south of Qinghai Province, a horse is walking on a dry riverbed at the drought-hit source of Yangtze River.

agricultural non-point source pollution and livestock pollution remain serious.

Land of fragile ecological environment shares more than 60% of the total area. Ecological environment pressure is prominent, for Chinese per capita resources is less than half of the world average, but the unit GDP energy consumption and material consumption are much higher than the world average. Ecological protection policies, regulations and standards still need to be improved. Although China has promulgated a series of environmental protection and natural resource management laws and regulations, these laws have different emphases, resulting in the lack of a comprehensive ecological protection law. Insufficient investment in ecological protection, in capital input, and single channel show that effectiveness of eco-governance project still need to be improved. The technology and information support of ecological protection are weak, ecological protection research power is limited, leading to the difficulty to support the management.



An abandoned county at the source of Yellow River due to lack of water.

After 30 years of rapid development, China has become the world's second largest economy the accumulated environmental problems have emerged one after another as well, and the overall environmental deterioration has increased the pressure. As GDP grows, the huge "ecological deficit" appears. In the face of frequent environmental events, the single assessment indicator of economic growth is not functional. Data show that China has the largest consumption of energy, steel, and cement. In 2013 the total energy consumption got 3.75 billion tons of standard coal; among the 704 water quality monitoring sections in ten drainage basins, and inferior V-Class sections accounted for 8.9%. Serious pollution is a threat to the drinking water safety. And "cadmium rice" incident arouses the concern about the soil contamination problem...

A direct evidence: Around February 24, 2014, the satellite remote sensing monitoring of Ministry of Environmental Protection showed that more than one million square kilometers of land in China suffered from the dust-haze pollution.



For example, on February 22, 33 out of the 161 cities covered by the air quality new standard monitoring activity encountered intense pollution, and 10 cities worse. The pollution was primarily in Beijing-Tianjin-Hebei and surrounding regions, and central, western and northeastern China. Among them, Beijing-Tianjin-Hebei and surrounding regions suffered the most, with primary pollutants including PM2.5 and PM10.

On February 21, the air pollution emergency headquarter of Beijing issued the air pollution orange alert for the first time. According to the unified arrangement of emergency operation for heavily polluted weather, the industrial system carried out the *Heavy Air Pollution Industrial Emergency Subplan*. 36 enterprises stopped production and 75 reduced production. At zero o'clock on February 23, Shijiazhuang City of Hebei launched the emergency response to heavy pollution Grade II (orange) alert, restricting 20% of traffic within the third ring road, excluding vehicles of army, police, emergency treatment, rescuing,



A civilian, wearing a gauze mask, walks the dog in a day of heavy pollution for which orange warning was given by relevant Beijing authorities.



people's livelihood ensuring vehicles, buses, taxis, etc. During those days, the author of this book was living and working in Beijing, feeling deeply the negative impact of the air pollution on people's physical and psychological health.

The former Minister of Health Chen Zhu published the article entitled *China Tackles the Health Effects of Air Pollution* on the Lancet, the authoritative international medical magazine in December 2013, believing that the outdoor air pollution causes 350,000-500,000 people's premature death in China every year.

Ministry of Environmental Protection issued the first true air "annual report" on March 25, 2014. The results were shocking: Air quality in 71 out of the 74 large and medium cities in China in 2013 failed to reach the standard, a share of 95.9% of the total. The qualified three are Haikou, Zhoushan and Lhasa. Around 300 million Chinese are living in those 74 cities.

The pollution brings hugely negative impact on China's economic, social development and people's livelihood. It forces us to declare war against the air pollution, or the consequences would be unthinkable. Against the very backdrop, Premier Li Keqiang sets his heart on declaring war against the pollution.

Since the war is declared, then next, how will we fight the pollution in the "hard" war? How will we win and curb the trend of ecological environment deterioration to construct an ecological China?

Premier Li Keqiang gives the "prescription": Hit the air pollution a hard blow and intensify the treatment and prevention. Concentrate on the haze-prone large cities and regions, take the treatment of the fine particulate matter (PM<sub>2.5</sub>) and the inhalable particle (PM<sub>10</sub>) as a breakthrough, focus on the industrial structure, energy efficiency, exhaust emissions and dust, and other key areas, improve the new mechanism jointly participated by government, corporate, public, carry out the regional joint prevention and control, and thoroughly implement the air pollution control action plan. In 2014, we will obsolete 50,000 small coal-fired boilers, conduct 15 million kilowatts of desulfurization, 130