Jiang Chunyun

SAVING THE BIOSPHERE



On the Transition of Human Civilization

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Editor's Note

We have only one Earth. However, the global environment is deteriorating, and this poses a major threat to the survival and development of mankind. The current environmental crisis is a by-product of traditional industrial civilization, for which the fundamental way out lies in the transition of human civilization. Speeding up the transition from traditional industrial civilization to modern ecological civilization is a top priority and common responsibility of humanity. Every one of us is a cell in the Earth's biosphere. We can be either benign cells, contributing to the building of a green home, or malignant cells, hindering the development of a green home. I wish everybody to be a benign cell, instead of a malignant one, so as to rescue the scarred and exhausted biosphere for the sake of future generations.

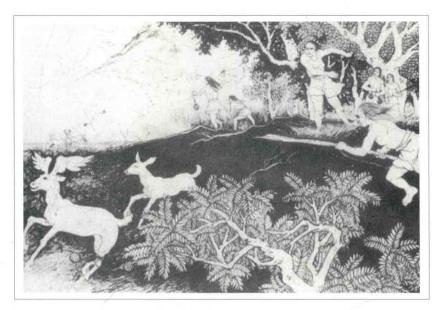


Figure 1-1 Hunting with a sling. Primitive man got food mainly through hunting and gathering.

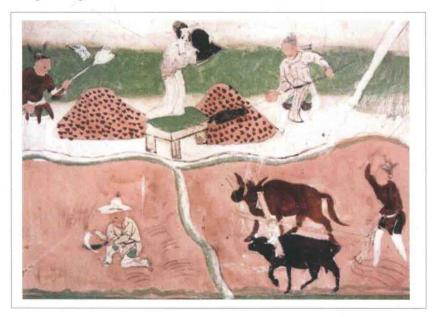


Figure 1-2 "Tilling and Harvesting," a mural painting of the Five Dynasties (907-960) of China in No. 61 Cave of the Mogao Grottoes, in Gansu Province

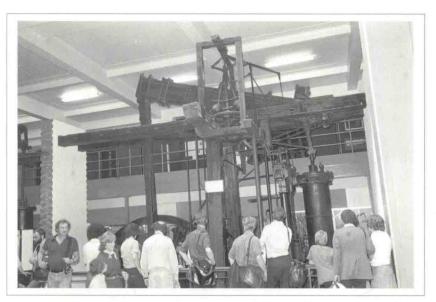


Figure 1-3 The invention of steam engine powered the industrial revolution in Europe in the 18th century. The picture shows the world's first steam engine made by James Watt, with quite a few wooden parts. (Photograph from Xinhua News Agency)



Figure 1-4 A kid pulling a water bucket at a refugee camp in Mauritania on May 3, 2012. Water crisis and land desertification pose serious threat to local residents. (Photo from the Xinhua News Agency)

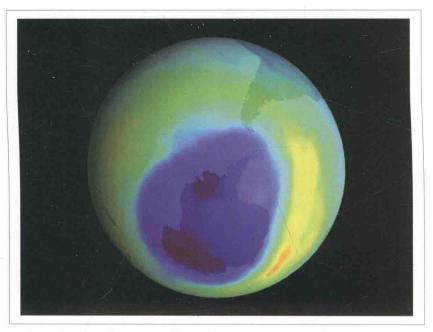


Figure 1-5 The picture shows the ozone hole (dark blue part) over the South Pole; it is provided by the National Aeronautics and Space Administration (NASA). By the end of September 2000, the Antarctic ozone hole had expanded to a size of 28.3 million square kilometers. (Photo from the Xinhua News Agency)

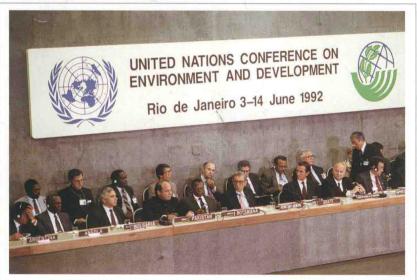


Figure 1-6 In June 1992, the United Nations Conference on Environment and Development was convened in Rio de Janeiro, Brazil. (Photo from Xinhua News Agency)

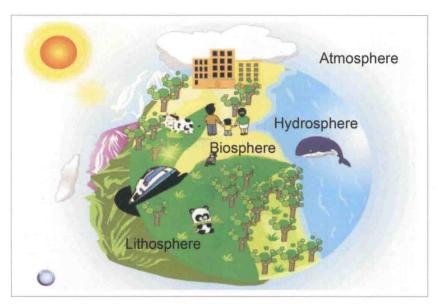


Figure 2-1 Schematic Diagram of the Earth's Hydrosphere Circulation

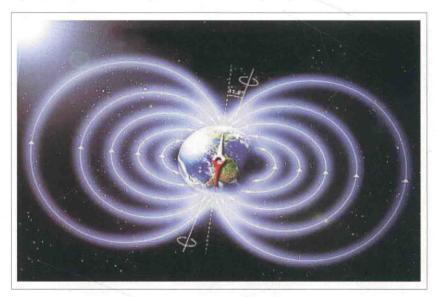


Figure 2-2 Schematic Diagram of the Earth's Magnetic Field

			AN THU A	TH M M TE	CAUTE IT	ME SCALE	0
Eon	Era	Period	Epoch	Years ago		Biological evolution	1
Ph	Cenozoic	Quaternary	Holocene	10,000	w.W.		Age of Man, Modern
			Pleistocene	200,000	34		Animals, Modern Plants
		Tertiary	Pliocene	6000,000	*		
			Miocene	22,000,000			
			Oligocene	38,000,000			Angiosperm & Age of Beasts
			Eocene	55,000,000			Age of Deasts
			Paleocene	65,000,000			
Phanerozoic	Mesozoic	Cretaceous		137 million		# Inc.	Gymnosperm & Age of Reptiles Ferns & Age of Amphibians
zoic		Jurassic		195 million	-		
	oic	Triassic		230 million	The		
		Permian		285 million			
		Carboniferous		350 million	£4 6 1-		
	Paleozoic	Devonian		405 million	YY		Psitophyte & Age of Fishes
		Silurian		4.40 million			
		Ordovician		500 million			
		Cambrian		600 million	1		Eukaryotic Algae & Age of Invertebrates
Cryptozoic	Proterozoic	Sinian		13000 million	*		
				1900 million			Age of Bacteria
				3400 million			and Algae
	Archean			4600 million	The Formation and Chemical Evolution Period of the Earth		
				>5000 million		The Formation Period of the Solar System	

Figure 2-3 Geological Time Scale

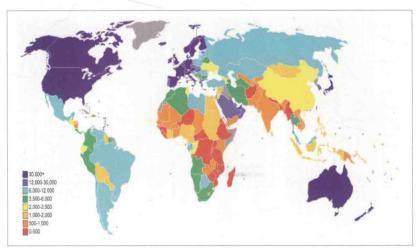


Figure 3-1 The per-capita GDP of countries worldwide, 2007



Figure 3-2 Buildings for research and experiment of the Biosphere II, Arizona, US. The experiment sadly ended in failure.



Figure 4-1 On December 3, 1984, the leak of poisonous gas in Bhopal, India shocked the world. Demonstration is still held by local residents on the anniversary. (Xinhua News Agency)

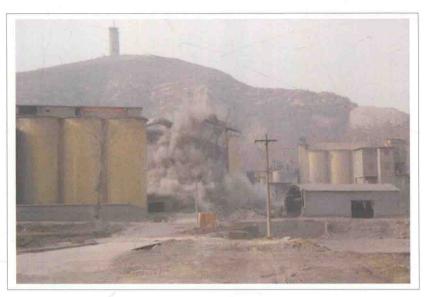


Figure 4-2 In April, 2009, the last shaft kiln was pulled down in Luquan, Hebei Province, which marked the end of outdated cement production technology featuring high consumption and serious pollution.



Figure 6-1 Lush grass and trees in Nonglatun Village, Mashan County, Guangxi Zhuang Autonomous Region. Closing hillsides to facilitate growth of trees for half a century has born remarkable fruits—turning the once bare mountains into an ecological reserve and a wild medicinal herb production base at the autonomous level. (Photograph from Xinhua News Agency)

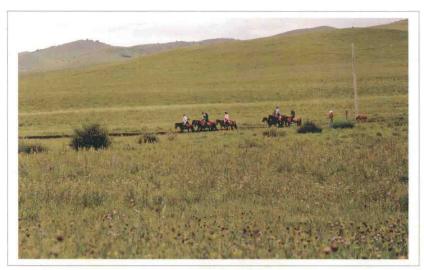


Figure 6-2 Hexigten Banner in Chifeng City, Inner Mongolia Autonomous Region implemented a program of turning farmland to pastureland where grazing was rotated by the season together with the development of drylot feeding and grazing ban. This picture shows tourists going out sightseeing on horseback on the grassland. (Photograph from Xinhua News Agency)

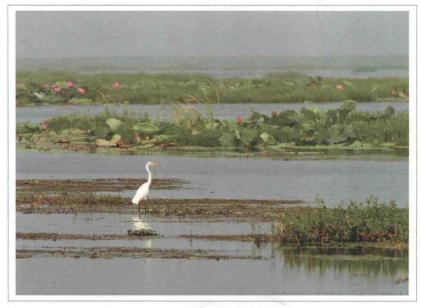


Figure 6-3 An egret returned to a wetland by the Honghu Lake in August 2007. By removing enclosure culture nets and controlling pollution sources, large tracts of green lotus reappear on the lake. (Photograph from Xinhua News Agency)

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