

Feature 6

International Challenges Confronted by China's Environmental Problems

Xiaoming Yang

The development of China faces fundamental challenges during the first half of 21st century, including: (1) the challenge of resources and energy shortage; (2) the challenge of bottleneck of ecological development; (3) the challenge of a series of issues during economic and social development. How to treat the challenges and pressures of ecological environment for China from international point of view will play an important role in China's integration into the world and strengthening international environmental cooperation.

6.1 Major Global and Regional Environmental Issues Faced by China

In the mean time of China's economic development, the global environmental pressure for China is also intensifying with the advance of industrialization, urbanization and agricultural modernization. The global environmental pressure China needs to respond to is "double pressure": natural pressure of pure "environmental threat" and "threatening the environment" caused or directly generated by global environmental issues, which is linear or unidirectional; and social pressure of "the environment threat theory" and "Theory of Big Power's Responsibility" led by or extended from global environmental issues, which is normally a surrounding type of pressure.

6.1.1 Various Regional Environmental Issues and Complex Relationship of Trans-boundary Impact

The regional environmental issues of China can be divided into the following three types. (1) Trans-boundary environmental issues with environmental medium as carrier. The key issues of this type include trans-boundary water pollution of China–Russia, China–Kazakhstan, China–North Korea and Mekong River basin, long-distance air pollutants transfer such as acid rain and sand storm in Northeast Asia, marine pollution such as the Huanghai Sea and the Bohai Sea. (2) Environmental issues caused by product/waste trade. The issues of this type include ecological problems caused by China-Russia timber trade, ecological damage caused by road transportation of China-ASEAN Free Trade Area, environmental impact caused by export of waste from US, Japan and South Korea to China, biological invasion caused by marine transportation, etc. and (3) Environmental issues with capital flow as carrier. The key issues of this type include environmental problems caused by foreign direct investment in China and China’s investment in foreign countries, the latter one has become the excuse of “China threat theory- environment” and “China threat theory-resource”.

6.1.2 Increase of Resource Consumption Pressure Caused by International Trade

Although China has been improving its import and export structure, China is still at the lower end of international trade system and international product supply chain. Compared with the products imported by developed countries, the products China exports are low in added value but high in resource and energy consumption. Research shows that the embodied energy¹ behind import and export is large in terms of both absolute value and growth rate. In the meantime of trade surplus, China loses in “ecological deficit”. According to calculation, from 2001 to 2006, the embodied energy of China’s net export increased from 210 million tons of standard coals to 630 million tons standard coals, showing the trends of steady and rapid growth. In 2002, the total amount of embodied energy of China’s net export was approximately 240 million tons standard coal, accounting for 16 % of the primary energy consumption in 2002, which mainly run to developed countries such as US and Japan with the embodied energy of net export of 75.24 million tons of standard coal and 48.94 million tons of standard coal respectively, the sum of the above two countries accounts for more than 50 % of the embodied energy of

¹ Embodied energy or embedded energy is referred to the sum of energy inputs consumed during the whole process of upstream processing, production and transportation.

China's net export. However, despite the large trade surplus, China is experiencing large biological deficit.

6.1.3 Illegal Import of Waste from US Influences China's Environment

With the development of China's economy, the demand of China for solid waste as raw materials such as waste steel is increasing gradually. China imported 40 million tons of waste steel in 2006, 3.6 times more than that of 1999. However, there are cases such as importing waste do not meet the requirements of environmental standards or illegal import of solid waste. US is the largest exporter to China and the largest waste raw material exporter to China whose overseas suppliers accounts for 20 % of total suppliers. China's inspection and quarantine departments have discovered many lots of unqualified waste during the inspection of waste raw material exported from US to China. The lots number of unqualified waste reached 60 in 2006, and ten US enterprises were disqualified to export waste raw materials to China. Two US environmental protection organizations—BAN and SVTC jointly published a long survey report named "Exporting harm: the high-tech trashing of Asia" which shows that between 50 and 80 % of the electronic wastes (E-waste) collected in US for recycling are not recycled domestically at all, but very quickly placed on container ships bound for destinations of Asia and 90 % of those waste are exported to China. Since US is not a contracting state of "Basel Convention on the Control of Trans-boundary Movements of Hazardous Wastes and Their Disposal" and is not limited by multilateral hazardous waste import and export management mechanism. Though the waste raw material containing hazardous waste (for example E-waste) from US is found, it is hard or even impossible to ship them back.

6.1.4 China-EU Environment-Cooperation in Competition

China and EU share many common interests in a number of global environmental issues. China is an important member of developing countries and EU is an important member of developed country groups. The relationship between China and EU will definitely contains the competition and cooperation of developing and developed countries. In addition, there is also competition among developing countries as well as among developed countries. Therefore, China-EU relationship in global environmental issues shows not only the cooperation and competition between developing countries and developed countries, but the cooperation between China and EU to win competition advantage in their respective interest group. The focus of the issues between China and EU is climate change. EU needs

to dispute with China on undertaking the obligation of emission-reduction, and it also needs to cooperate with China to force US to undertake its obligation of emission-reduction, or cooperate with China on energy technologies to win competition advantage over other developed countries. In terms of biodiversity, EU needs to dispute with China on plunder and anti-plunder, limitation and breaking limitation concerning species resources and biotechnology, and it also needs to cooperate with China on bio-technology to win competition advantage over other developed countries, because China is one of the countries with the richest species resources. In terms of POPs and ozone layer conservation, EU needs to force China to phase out relevant products in advance in order to make its new technologies and new products win competition advantage in international market, and it also assists China to phase out relevant products, thus to accelerate the phase-out of similar products and technology in the world and win the competition advantage over other developed countries without related technologies and products. More over, EU is an important trade partner of China, so there are also environmental issues caused by product trade, i.e. a large amount of products are exported to EU, but the pollution is left in China.

6.1.5 China–Africa and China–Arabia Continuously Strengthen Cooperation on Environment

China and Africa, and China and Arabia are all developing countries who share many common interests and with main similar interests in a number of global environmental issues but this kind of relationship lies in multilateral relationship at global level, i.e. the common position and interests as developing countries. As to bilateral relationship, there are no unresolved issues on global environmental issues between China and Africa as well as Arabia. Thus we can strengthen the coordination in international position and cooperation in reciprocal programmes.

On the other hand, the ecological damage caused by China's investment in foreign countries is highly concerned by China–Africa and China–Arabia relation. China's direct investment in foreign countries has been developing rapidly in recent years, and the investment in foreign resource development is also developing quickly. For example, by the end of 2006, China had invested USD 6.27 billion in Africa and nearly a thousand enterprises set their offices in 49 countries of Africa. However, there is a problem that can not be ignored, which is the significant impact of China-invested overseas enterprises on local environment as well as the fund, technologies and development opportunities to host countries and local citizens they bring. Because of the incomplete legal system in host countries and lack of social responsibility of some enterprises, some China-invested overseas enterprises do not pay enough attention to environmental and resource protection, which invites much blame on China-invested overseas enterprises. This will be utilized, exaggerated or even distorted by a few competitors with ulterior

motives to create “China Threat Theory”, leading to negative impact on China's image and harmful to the long-term and smooth implementation of China's Going Global Strategy. China investment in Arab countries does not cause environmental problems or concerns in that field, but the experience and lessons of China's investment in Africa shall be learned to avoid environmental issues and adverse impact on China's image and enterprises' interest.

6.1.6 The Development in the Future will Intensify the Complexity and Toughness of International Environmental Issues

In addition to the complex international environmental issues, China set new national development strategy in the 12th *Five-Year Plan* to accelerate the transformation of economic development mode, to determine the scientific development and expanding domestic demand as the development direction for a certain period in the future. However, there is huge international environmental pressure behind these development goals. Improvement of China's living standard and consumption standard means more import and consumption of energy and resource. China's industrialization enters a new stage which may bring unpredictable impact on environment. Can the new road to industrialization be really realized? Both China's foreign trade and international development strategy in the future will bring much pressure to the future. Under this situation, we must positively respond to these pressures, take effective measures, create good international cooperation atmosphere, promote cooperation with nearby countries in Asia, US, EU, countries in Africa and Arab areas, and take all types of supporting measures to advance environmental cooperation.

6.2 Positively Respond to Global Environmental Issues

We need to accomplish the following to respond to global and regional environmental issues.

First, we need to fully understand and focus on the importance and particularity of global environmental issues, to review the global and national environmental issues from the global point of view, to recognize that China's environmental issues are also global environmental issues, the relationship between global environmental problems and China's environmental issues are bidirectional who are depend on each other. The solution of global environmental issues is helpful to resolving China's environmental problems and reducing China's environmental pressure; meanwhile, the improvement of China's environmental problems is a large contribution to the resolve of global environmental problems. Therefore, we shall take into consideration of pressure from domestic environmental issues and

the pressure from global environmental issues, and our emphasis shall be changed from responding to pressure only from domestic environmental issues to paying equal attention to pressure from domestic environmental issues as well as pressure from global environmental issues.

Second, we shall strengthen our action. Responding to both natural pressure and social pressure of global environment, we shall first of all strengthen our own compressive resistance. In face of natural pressure, ecological quality shall be improved to strengthen adaptability and resilience of ecological environment. Responding to social pressure, we shall do well in putting forward measures, taking measures, conducting proper publicity and leaving no disputes. Secondly, we need to change external pressure into internal driving force. In face of natural pressure, we need to “take” and “utilize”. The trans-boundary transfer of waste may lead to environmental pollution and soil damage, but the reasonable planning and utilization of waste as resource will turn waste into wealth and reduce domestic resource and energy consumption. In face of social pressure, we shall advance domestic development with outside factors, borrow force to make force and turn resistance into motives. For example, we shall accelerate domestic industrial structure adjustment and develop green economy to reduce global emission of greenhouse gas. We shall accelerate the phase-out of domestic POPs to implement environmental conventions on reduction of POPs and substance consuming ozone layer. We shall classify ecological function region, set up natural reserves and protect biological environment so as to reduce the loss of biodiversity.

Third, we shall strengthen supporting measures of advancing global environmental cooperation. (1) We shall strengthen publicity to improve China’s right to speak on protecting global environment. For example, we shall hold high level and large scale international seminars, print and distribute relevant prospectus, the Ministry of Environmental Protection shall establish close and periodical information exchange mechanism to publicize the efforts and achievement of China on global environmental protection and to fight for right to speak on international environment. (2) We shall deepen researches. In face of natural pressure, we shall strengthen resistance through hi-tech. In face of social pressure, we shall deepen the analysis on the impacts of global environmental issues on China so as to study the interest of policies and conduct strategic research. (3) We shall continuously improve the ability of people conducting global environmental issues research and decision-makers through training and seminars, thus to enable these people to transit from participation in negotiation of international environmental rules to actively stipulate green rules, to respond to external pressure with internal motive, such as drawing up convention articles and submit negotiation proposal. (4) We shall continuously complete mechanisms such as research mechanism, negotiation mechanism, convention implementation mechanism, funding mechanism, international cooperation mechanism and related mechanisms concerning responding to global environmental problems. (5) We shall establish teams. Western developed countries including US all have a strong team studying global environmental issues to provide powerful technical support to negotiation. China is still weak in

research base with research people dispersed in some research institutes and universities and no joint force formed. It is suggested that a special research organization be set up under Ministry of Environmental Protection to establish a strong team specialized in research of international environmental issues.