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## **Environmental Finance in China's Western Region Development Plan**

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### **Abstract:**

During the past 20 years, economic reforms undertaken by China have led to rapid economic growth, as well as increasing environmental problems. In particular, economic development in the Eastern Region has been associated with severe environmental degradation. For example, the Huaihe River has been badly polluted through this process of development, air quality is poor, and red tides have been observed along the southeastern coastline.

In the 10th five-year national development plan (2001-2005), the Chinese government is focusing on promoting economic growth in the Western Region, since it is relatively underdeveloped compared to the east. However, the government wishes to ensure that economic development in this region is accompanied by social development and does not further compromise the environment.

To realize a future path of sustainable development that avoids the costs of environmental degradation, the government has chosen to emphasize environmental regulation and protection in the development of the Western Region. It has also emphasized research on the linkages between the environment and development. However, the questions of how the required environmental investments will be financed (Environmental Finance), the appropriate balance between public and private spending, and understanding the role of Environmental Finance have recently emerged as key issues.

To this end, China is working to enhance cooperation with foreign partners. For example, in November 2000, China and the OECD organized a special forum on environmental issues facing China, including the role of Environmental Finance. The challenge of designing an appropriate strategy for the development of the Western Region provides a good opportunity to explore the use of Environmental Finance in China.

## **Environmental Finance in China's Western Region Development Plan**

### **1.0 Introduction**

China is a developing country in the midst of rapid transformation. During the past 20 years, economic reforms have led to annual economic growth rate of 7%. China has achieved annual GDP of over US\$1 trillion and GDP per capita has reached US\$800 (10th Five-year Plan Report, March 2001). There have been impressive social and economic achievements, but as well there have been increasing environmental problems. Like many countries before it, the more the Chinese economy has developed, the more apparent these problems have become. A recent survey has indicated that environmental protection has become a major concern among Chinese people (People's Daily Online, 05/29/2001). There is a growing awareness of the extent of the environmental problems facing the country.

Natural disasters are frequent, can be large scale, and are an indicator of the environmental degradation in China. The two severe floods in 1994 and 1998 in the south caused huge losses in agriculture and the general economy. It is estimated that the flood in Yangtze River basin in 1998 caused economic losses of 80 billion RMB(US\$10 billion). In the north, drought has threatened agriculture and seriously affected the flow of the Yellow River, the second longest river in China. Sandstorms often invade Beijing and other areas, and can be traced to soil erosion in the north. In the spring of 2001, strong winds filled with dust particles affected many parts of northern and western China. It was reported by the UN in 1995 that eight out of the ten most polluted cities in the world are in China. (Economist Intelligence Unit, Country profile China 2000/2001). China is ranked the third in the world in emissions of green house gases (Kyoto Agreement Conference, Japan, 2001).

The central government has responded strongly within its Tenth Five-Year Plan for National Economic and Social Development (2001-2005) adopted by the National People's Congress in March 2001. The plan provides a roadmap for economic development over the next five years and will push forward the opening of the economy and the pace of reform, which envisions an expanded role for market rules. But the plan has also puts unprecedented importance on environmental protection and sustainable development and, for the first time, environmental goals have been included in the overall objectives and guiding principles of the plan.

Among other goals in the plan, by 2005 the plan seeks to reduce SO<sub>2</sub> emissions by 20% compared to 2000 and emissions of major pollutants by 10%, have 60% recycling of industrial wastewater, treatment for 45% of urban sewage, increase the country's forest coverage to 18.2% and green areas in urban areas to 35%, and to complete natural forest protection projects on the the Yangtze and Yellow Rivers.

Achieving the targets in the plan is a large challenge and fundamental to this will be the role of environmental finance to support specific projects and the administration of environmental protection in all parts of China. However, most important will be the role of environmental finance in the western region of the country, and how various parts of Chinese society respond to the challenge.

## **2.0 The Environment and Environment Finance in the WRDP**

As part of the 10th Five-Year Plan the Central government of China has decided to focus much of its attention on developing the western region of the country. Developing this resource rich but underdeveloped region is at the top of the Chinese government's agenda. This strategy has been motivated by its interest in maintaining rapid economic growth, and reducing the social and economic disparities between the eastern and western regions of the country. In 2000, the central government announced plans to invest 30 billion yuan (US\$3.6 billion) in various ongoing projects in western China (People's Daily Online, 03/05/2000 and Xinhua, 03/06/2000).

Much of the plan for the west concerns infrastructure development: highways, railways, airports, gas pipelines, electric power grids and telecommunications. However, the government wishes to ensure that economic development in this region is accompanied by meaningful social development and does not further compromise the environment, and is based on the experience from home and abroad. Thus, the government will rely heavily on improving the investment environment and doing what is needed to attract foreign funds and import foreign technology and managerial expertise.

### 2.1 The important environment role of western region in China

During the past 20 years of reform and opening of the economy, there has been rapid social and economic development. However as the attendant environmental problems worsened in the eastern region, central and local governments have increasingly paid attention. For example, in 1998 government implemented forced measures to reduce discharges from industry to improve the situation of the Huaihe River. The Huaihe River has been badly polluted by industry discharges, human sewage, pesticide and fertilizer runoff, and livestock manure. These sources of pollution have harmed other river systems with many consequences including the observation of more frequent red tides along the southeastern coastline. In 2000, 28 "red tides" were recorded affecting 10,000 square kilometers, up from 13 in 1999. Various forms of pollution are causing annual losses of 3 billion yuan in the fishery industry (SEPA, 2001).

However protecting the environment of the Western Region will play an important role. The Western Region includes twelve provinces, autonomous regions and municipalities in south west and north west of the country (Chongqing, Sichuan, Guizhou, Yunnan, Tibet, Guangxi, Shaanxi, Gansu, Qinghai, Ningxia, Inner Mongolia and Xinjiang). This region has a population of about 300 million, (23% of total population) with a regional GDP of 1540 billion yuan (17.5% of total GDP), yet occupies 71% (6.85 million km<sup>2</sup>) of the country. Consistent with its size, the Western Region also plays an important environmental role, and has some conflicting resource issues.

First, many of China's large rivers originate in and have upper and middle reaches in Western Region. The Yangtze, Yellow and Pearl Rivers are examples. Hence, the control of industrial and sewage discharges and forestry and farming practices in Western Region are closely related to the health and welfare of the lower reaches of these rivers in the eastern regions. The government has recently announced 1.9 billion yuan of funding to reclaim about 343,000 ha of farmland to forests along the upper parts of the Yangtze and Yellow Rivers (China Youth Daily 03/30/2000).

Second, the seasonal monsoon from the Western Region affects most parts of China. In recent years, sandstorm problems in the middle and eastern regions can be traced to deforestation and soil erosion in the western. A contributing factor is that at present, about 90% of China's grasslands are degraded to varying degrees and expanding by 2 million hectares each year (SEPA, 2001).

Third, the Western Region has abundant mineral, energy and biological resources. Amongst the 160 major mineral resources found in China, there are large reserves in the west, among which coal deposits account for 38.6% of national reserves, oil 41% and water energy resources 82.3%. However, many of these resources are non-renewable, and their exploitation is associated with pollution in proportion to their use. Rich bio-diversity is found in the relatively remote areas of the Western Region with many valuable species of plants and animals such panda, antelope, licorice root, etc. Thus, there is some concern that accelerated resource exploration in this region may disturb the ecological balance and endanger these species.

## 2.2 Current environmental situation in the Western Region

Western Region can be divided into two parts, North Western (Shaanxi, Gansu, Qinghai, Ningxia, Inner Mongolia and Xinjiang) and South Western (Chongqing, Sichuan, Guizhou, Yunnan, Tibet and Guangxi). The dominant geographic features in the North West are sand and gravel deserts, and hilly areas while the South West is characterized by mountains and plateau. Most surface water resources are found in the Southwest with only the Yellow River as the main river in the Northwest.

Home to only 23% of the population, economically the region is very poor, with many nationalities, for reasons of history, culture, and the lack of good transport services. Now, because of rapid population growth and economic development, the environmental situation has become serious in some areas. Deforestation and soil erosion are the main reasons for severe floods being experienced in southeast regions. These causes, along with over-grazing and the expansion of deserts in the north have been linked to droughts and sandstorms. It is estimated that 80% of current soil erosion in China takes place in the west.

In addition, mining and smelting of mineral resources has caused very serious pollution that can be traced to a shortage of capital, technology and management capability. This has attracted the attention of government. According to Mr. Xie Zhenhua, Minister of the State Environmental Protection Administration, development in the Western Region presents a real challenge for environmental protection, and explains why China is emphasizing integrated economic and environmental planning.

During the course of the 10th FYP, China's population will continue to grow, while urbanization and industrialization will accelerate and economic growth will continue to be strong. Left unattended, these will all combine to make it more difficult to combat environmental damage. Therefore, in its plan for development of the Western Region, China must not only support economic and social development, but must also pay attention to and promote environmental protection and rehabilitation. In this regard, Environmental Finance has a central role to play.

### **3.0 Current Mechanisms for Environmental Finance in the Western Region**

Environmental Finance is and will be one of the key components in environmental protection and rehabilitation in China. The term refers to the constellation of potential sources of financial investment that could be applied in support of environmental affairs. At present, like the rest of the country most of the capital for environmental finance for the Western Region comes from spending from within governments' current budgets, and although there is a desire to decentralize the responsibility for environmental finance, recent reforms present a barrier.

Following China's fiscal reforms of public finance and bank commercialization in 1994, a more decentralized financial system was established. Formerly, all taxes were collected at the local level with remittances to the central government. Now, taxes are basically divided into central and local taxes under the control of central or local government administrations respectively. Meanwhile, the central government continues to transfer funds to support provincial governments with budget deficits. The reforms also involved the banking sector. Former national banks were converted into commercial banks, making loans to individuals and business. New "policy banks" were created to provide financing for public works as the national banks had done in the past. These reforms have effectively improved the performance of provincial governments in boosting their local economies and the business performance of commercial banks.

However, the reforms have caused problems in the allocation of public expenditures towards issues such as environment protection. With limited budgets, provincial governments have tended to pay more attention to promoting economic growth than to environmental affairs. Faced with extensive poverty, they have chosen to support increasing income by investing more in industry and infrastructure. As a result, local environmental agencies and organizations have often been left short of the funding they need to implement environmental projects and the oversight of business operations.

It has only been in the face of severe environmental problems and clear economic consequences that the motivation has been found to arrange the needed capital. It has been estimated that this kind of damage accounts for 3% to 13% of GDP depending on different definitions of damage and methodologies (CCICED, 2000). For their part, commercial banks have also focused on economic projects with high returns and tended to ignore long term, risky and low return public investments including environmental projects. The commercial banking system still has some way to go in being able to respond to the need for environmental finance, specifically lacking the needed tools to appraise projects. Meanwhile, in the western region conditions are difficult, with complicated cases and there is not the system of integrated statistical technical and economic data needed to assess systems under market conditions. All of these combine to affect the ability of commercial banks to allocate capital towards projects of environmental protection and rehabilitation.

In terms of attracting financing from the capital market, the Western Region lags behind the east, especially in environmental projects. This is clearly indicated from observing the structure of stock markets in China. Listed companies from the Western Region are relatively few, and they are small compared to the average. There are 164 listed companies from the west, accounting for

only 18% of the total listed companies. These companies have an average of 68.5 million shares, compared to the national average of 88.6 million. Their profit per share is 0.08 yuan, less than the national average level of 0.10 yuan. These facts are reflective of the shortage of capital in the west and the preference of capital markets for high rates of return.

Based on the factors discussed above, enterprises, especially non-state-owned enterprises have been the main source of environmental pollution. Supported by local governments with preferred tax rates, and combined with ineffective supervision and administration by environmental agencies, enterprises have tended to abuse natural resources and have been careless about discharging pollutants into water courses and air emissions until severe health and environmental problems were disclosed. Since early 1990s, non-state owned enterprises share of GDP has exceeded that of state-owned enterprises, and their share of pollution emissions has also been higher.

In the Ninth Five-Year planning period, it became a crucial problem to begin to effectively control enterprises, especially non-state-owned enterprises, in the realm of environmental protection. However, there were a number of fundamental problems when considering how to finance environmental projects: information shortages, lack of proper cost-benefit analysis and evaluation system, shortage of tools for risk analysis and control, and a lack of proper technologies and equipment.

Last but not least, there are challenges related to the general population in regards to the environment. Citizens face little in the way of direct costs in their daily life related to resource use and pollution and the education system is far from perfect. For example, citizens pay as little as 1.2 to 1.5 RMB/tonne for water for household uses. People lack environmental commonsense and often waste resources such as water, electricity and gas. In urban areas, sewage discharges exceed industrial discharges while taxes related to pollution from people's daily life are not in proportion to expenses.

The pattern of economic growth observed in China demonstrates a form of development that is fundamentally unbalanced; degradation of the environment and human health, coupled with unclear responsibilities among the public, enterprises and governments. In the past, government has carried the largest share of the burden by providing capital supports to environmental projects, and cleaning up after the occurrence of the environmental problems. There needs to be a profound shift to place more of this responsibility in the hands of the public and private enterprises. Without this reform it will be difficult to fulfil the need for Environmental Finance and the goals of the 10th FYP.

#### **4.0 Environmental Responsibilities: forging new environmental partnerships**

To realize the objective of coordinating economic, social and ecological development, there is an urgent need to reform the mechanism of Environmental Finance. This reform would include broadening the sources of finance, building a stronger consciousness of the environment within Chinese culture, and clarifying the environmental responsibilities of governments, enterprises and the public within a new environmental partnership that will optimize the use of scarce

capital. The allocation and coordination of environmental responsibilities among the three parties should follow the model outlined below.

#### 4.1 Governments' responsibility

Although the main theme of reform is to lighten the burden on governments by decentralization and the re-allocation of obligations, governments still need to play the lead role in environmental protection and sustainable development. Within the division of responsibilities, governments should focus on project initiation, environmental planning, public education, research and environment protection administration.

Instead of simply enduring the burden of treating the pollution that follows economic growth, governments can have more important roles, although they can still take the lead in public environmental projects such as dam construction and pollution treatment projects. However, their role should be central to long term environmental planning, formulating environment and development strategies and their implementation. This role should be manifested in setting objectives and the development of standards, project control, and the evaluation of technical options.

Governments also should be primarily responsible in the fields of public environmental education and research that cultivates a green consciousness and ecological culture. The market has a myopic focus on financial performance, so it is up to governments to establish frameworks in which the market's focus can be broadened to include environmental protection.

Following the lead of some developed countries, government has the role of developing and implementing economic instruments, institutional and legal tools to support good environmental behaviour. Examples would include: emission quotas, preferential taxes, emission taxes, fines and higher public utility charges. These instruments can all be found in the 10th FYP.

Governments also have the lead responsibility for initiating and facilitating international cooperation on environmental matters through policy consultations, technical transfers, and sources of capital. China can learn from the experiences of countries such as Japan and Germany in promoting environmentally friendly industrial development. In fact, China has built close relationships with some OECD countries, in particular Japan. In addition, foreign experts from the China Council for International Cooperation on Environment and Development contributed much to the formulation of the environmental aspect of the Tenth Five-Year Plan.

#### 4.2 Enterprises' responsibility

The essential aim of the plan for the Western Region is economic development to increase human welfare, and improve the situation of the poor. Enterprise is a key element in this activity. The encouragement provided by many preferential policies and large investments by the central government in basic industrial infrastructure have created enormous opportunities for enterprises. For example, last year government listed 225 projects with preferential policies for foreign investors, with the aim of attracting foreign investment to western and central regions.



Investors can receive tax exemptions for importing equipment and a value-added tax exemption for projects listed in the circular (People's Daily Online 06/23/2000).

But, at the same time there is the potential for very serious consequences for the environment. Enterprises must become more active in monitoring and control of discharges under current conditions and work towards fundamental redesign to avoid environmental impacts in the first place.

So, it is critical to be clear about enterprise's obligation with respect to environmental protection. As a starting point, a fundamental principle to consider is that when an agent in the economy creates pollution, somebody has to respond it, whether it is to adjust to the environmental insult, or to mitigate it. Enterprises must be obliged to internalize environmental costs and thereby achieve acceptable standards of emission and discharge.

One path that enterprises could follow towards meeting their obligations is to adopt the efficiency - substitution - redesign (ESR) transition strategy proposed by Hill (Hill and Henning, 1992). First, they should seek ways to use resources more efficiently by minimizing wasteful use. The next step is to develop new products or inputs to replace those that might have significant environmental impacts. The final and most difficult phase is to use ecological principles to redesign their operations so that impacts are avoided in the first place: designed out of the system. A useful first step would be for Chinese industry to adopt ISO-14000 guidelines for Environmental Management Systems.

Industry organizations could play a vital role in promoting ESR strategies and ISO-14000 by working between governments and enterprise, communicating and promoting dialogues so that industry can receive more support for new technologies and policies from government.

#### 4.3 Individuals' responsibility

With the implementation of the Western Region development plan, the human condition in the region could improve significantly. Yet, with improved economic circumstances also comes the potential for larger individual environmental impacts resulting from simple individual day to day choices. Citizens must be responsible for their use of resources, disposal of wastes, acceptance of the necessary charges to cover costs, and helping to build a green culture.

In recent years the Eastern Region has witnessed urban sewage pollution that has exceeded industrial discharges. This same situation could develop in the west, so, as one of the important steps in developing the west, as urbanization proceeds, individuals must pay more attention to sewage issues. This perhaps could be encouraged by urban utilities imposing sufficient service charges, and it is the responsibility of citizens that this be understood as an ecological imperative. In 1999, the Yangtze River alone received more than 20 billion tons of sewage, accounting for 34 percent of the country's total (People's Daily Online, 12/04/00).

In rural areas, small, family scale units dominate agricultural production, and some environment problems can be linked to the use of pesticides, chemical fertilizer and the release of animal and human wastes. With the help of government, farmers can try to realize organic production and

better manage animal wastes. In these areas, there is a need to improve infrastructure to accommodate increasing the scale of livestock production while at the same time properly managing manure.

It is important that persons or families voluntarily accept the economic responsibility for dealing with the pollution generated in daily life. This would not only save some sources of environment finance, but also promote the people's environmental consciousness.

## **5.0 Sources of Environmental Finance for the WRD**

With the obligations of governments, enterprises and the public better defined, the sources of Environmental Finance are clearer, and the goal of reducing the reliance on governments should be easier.

### 5.1 Government finance

As already mentioned, public environmental projects should remain the obligation of governments. There are three means available to governments to arrange financing.

#### a) Public finance:

Government has already taken the lead in providing significant funding to deal with existing environmental problems so there exists a substantial foundation. In the Tenth Five-Year Plan, the central government intends that spending on environmental projects in China by government and the private sector should reach 1.3% of GDP, or about US\$13 billion annually. This compares to 0.72% of GDP in the late 1980's and .93% during the 9th FYP (People's Daily Online, 11/24/00). While it will remain important, the share of government is expected to decrease from its 84% share during the past Five-Year period.

#### b) Capital markets

The government could do more to raise capital for Environmental Finance in securities markets through bond issues. In the recent years, the government has successfully financed economic development in this way. In 2000, the central government planned to devote 70% (US\$3.6 billion) of its treasury bonds, government-appropriated funds and foreign loans into various projects in the western region. (People's Daily Online, 03/05/2000)

#### c) International capital supports and cooperation

China has already built close cooperative relationships in environmental finance with some OECD countries. Discussions with these countries have focused on:

1. trends and future financing needs for meeting environmental policy objectives in China,
2. strategies for matching demand and supply for environmental improvements

3. the main instruments and sources for financing environmental objectives, and

4. the role of donors and international organizations.

Developed countries and international organizations appear very ready to help develop. Yet, international capital supports are necessary for Environmental Finance along with supports in technology and project management.

For example, Japan has long term cooperation contracts with China for environmental loans. These projects have shown progress: forestation projects in the North West Regions that mitigate against sandstorms, soil restoration in Sichuan Province, and reducing SO<sub>2</sub> emissions in Guizhou Province. The World Bank has shown an interest in development in the Western Region and is preparing \$1 billion in loans on energy exploration and environmental protection. The Bank recently approved a loan of US\$100 million to assist the environmental recovery of the Liaohe River Basin in China's northeast province of Liaoning (People's Daily Online, 06/20/2001).

In support of these efforts, government must strengthen legislation, supervision, and the system of auditing environmental finance to assure anticipated outcomes. Preventing the misallocation of funds by refusing dubious projects and the misappropriation of environmental capital, is also a source of environment funding.

## 5.2 Enterprises' Contribution.

The contribution of enterprises could be guided by the following four principles.

a) If one pollutes then they should provide the mitigation. New projects or investments should not proceed, and banks should refuse loans until there is a scientific appraisal of environmental impacts and appropriate measures are taken to protect the environment. Formal environmental impact assessments should be part of this process.

b) The principle of sustainability as a part of business strategy. For non-renewable resources that are exploited, especially fossil sources, they should only come into use within the context of a sound scientific plan. The alternative is that a substitute resource (e.g. renewable or recycled) should be used.

c) If one invests then they should profit. The development of green industries should be encouraged by government through tax incentives, and interest subsidies on loans.

The environmentally clean operation of enterprises will decrease the environmental costs borne by society in general, and improve social welfare. Thus, there is a rationale for government to provide economic incentives for these enterprises so that they can benefit. Furthermore, these enterprises can benefit as the demand for green products develops, so that it is possible to meet both economic and environment objectives. Positive economic incentives will make it easier for enterprises to raise capital from financial institutions and the capital market.

d) The principle of close, stop, merge and turn.

Many enterprises impact the environment because their technology and equipment are old and outmoded. Adopting the principle of close, stop, merge and turn is also a means to increase environmental investment. This approach has already been used to great effect in some western provinces. In the interest of environmental integrity, some firms may have to be closed. Others maybe stopped temporarily and re-fitted with pollution control equipment. Merging firms may generate the economies of scale needed to effect changes while some firms may need to be encouraged to turn their attention to new products or new ways of producing existing products.

These environment principles will help to affirm the obligations of the environmental problem makers. Faced with penalties for pollution and incentives to redesign their operations, enterprises will become more conscious of environmental impacts and attempt to minimize these these external costs in the process of minimizing economic costs.

### 5.3 Contributions from individuals

Economic instruments have a role to play in raising funds from individuals for environmental purposes, and help to reduce state expenditures for remediation. The use of these instruments and other educational activities by government will help to build a green consciousness and a green Chinese society. For example, air quality reports are issued daily for 42 cities to help raise public environmental awareness.

At present in China, only those living in urban areas directly bear fees for household water and waste disposal, and these fees are relatively low, or non-existent in some cases. Rural residents do not face these fees, which is inequitable since costs are proportionately higher per family. This is not only encourages waste production and environmental impacts, but also contributes to the shortage of environment finance.

There needs to be a serious reform of utility fees and waste processing charges to support the real costs of waste treatment and to help control of the use of resources: water, gas, and electricity. Some progress is being made on this front. In 1999, the central government called on all cities to levy sewage treatment charges along with water fees, to contribute to the costs for municipal sewage systems.

Another source of funds could be consumption taxes on luxury or other goods that have higher environmental costs associated with them. At the same time, such taxes could discourage consumption, raise funds that could be collected at the local level and devoted to environmental protection and treatment, and contribute to enhancing environmental consciousness in the general population. Earlier this year, the State Economic and Trade Commission called for an immediate halt of using disposable expanded-plastic tableware (China Daily, 06/06/2001). This may seem extreme, but it helps to inform the public of the environmental consequences of such products.

There appears to be support for these types of measures. A recent survey indicated that 56% of Chinese regard air and water pollution as the top environmental problem, and 69% would support higher taxes for environmental protection (People's Daily Online, 05/29/2001).

## **6.0 Concluding Comments**

In the interest of environmental protection in China, a new partnership is needed among governments, enterprises and the general public. Clarifying the obligations of the three parties is also necessary to identify the sources of the required Environmental Finance. Cooperation between the parties in Chinese society, combined with supports from abroad will lead to an ecological culture, which is the foundation for sustainable development.

Environmental considerations have to become central to governmental development strategies, enterprises' operations as well as the daily lives of individuals. The old approach of using "end of the pipe" pollution treatments to respond to the consequences of rapid economic growth have been demonstrated to be ineffective and dangerous. Replacing this approach with re-design strategies combined with appropriate government incentives will allow enterprises to profit at the same time that human welfare is improved.

Based on the experience of other countries and the development of the eastern part of China, it is clear that this is the approach that must be used to develop the western regions. Supporting this approach is also in the interest of the international community. Recent reports indicate that sandstorms from north of China have effected Japan and even North America and there are concerns regarding projects on the Meigonghe River in the south of China. Environmental issues are not confined by national boundaries.

To realize sustainable development, countries must cooperate. In particular, developed countries and international organizations with their experience, technologies and capital can play active roles to aid and support developing countries to pursue growth paths that are environmentally sound. The development of western China provides a good opportunity for this type of cooperation.

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