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## Financial Sector:

# OPEN?

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## Promising Youths From All Walks of Life

A group of well-educated young people, who have mastered expertise in science and technology, have become experts in China's various trades and professions.



Yu Ximei, a girl from Huanglod Town in Qingzhou of Shandong Province, has grafted more than 50 azalea assortments using Chinese wild azaleas and Western azaleas. She has been working on the project for eight years, and currently grafts 600,000 plants per year.

*Photo by Wu Zengxiang*



The Huabei Bureau of Air Traffic Control, with the labor force centered on the youth, recorded no large accidents in air traffic managements last year. It makes 340 safe takeoffs and landing at Beijing's airport each day. The picture shows young workers guiding airplanes from several hundred km.

*Photo by Tang Zhaoming*



Wulan Shandan, a laboratory technician with the Inner Mongolia Medical College, has over the past 16 years made a large number of pictures for medical education, including a photo of cerebral loss. They have won several honors and awards.

*Photo by Li Xin*

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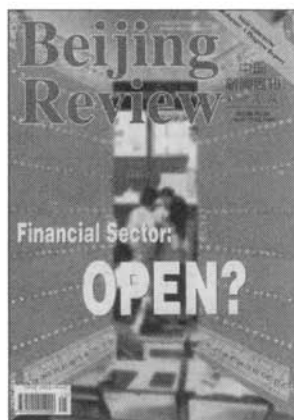
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## Jiang's African Visit Successful

President Jiang Zemin's state visits to Kenya, Ethiopia, Egypt, Mali, Namibia and Zimbabwe between May 8 and 22 were a resounding success. The tour, Jiang's first visit to Africa, also marks the first time China's top leader has ever set foot on this continent.



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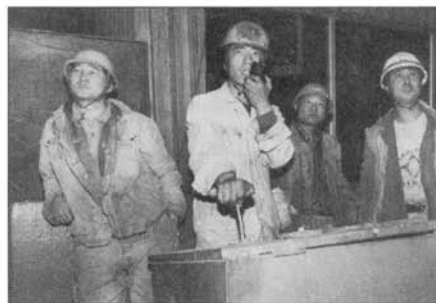
## Opening Effort of the Banking Sector

Zhu Xiaohua, vice-president of the People's Bank of China, recently said that China's banking service trade has already attained a relatively high degree of opening which has elevated it to the forefront among Asian countries.

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## Reform of State-Owned Enterprises

Following State Council approval, 100 enterprises have since 1995 piloted the establishment of a modern enterprise system, 18 cities introduced the program to optimize capital structures and 57 enterprise groups and three state holding companies were selected as experimental units.



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General Editorial Office  
Tel: 86-10-68326628  
TLX: 222374 FLPDA CN  
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# Int'l Banking Institutions Pour Into China

by Wei Min

**T**he People's Bank of China recently published its Provisional Management Regulations on the Establishment of Branches of Foreign Banks in China, allowing qualified foreign banks in Shanghai, Tianjin, Dalian and Guangzhou to establish branches.

Foreign banks operating in China welcomed the regulations, and many responded by submitting applications for establishing branches in the aforementioned cities.

The ongoing structural reform and opening of China's financial sector to the outside world has been accompanied by an influx of overseas financial institutions hoping to establish a foothold in the country. The Nanyang Commercial Bank Ltd. was the first overseas bank to enter the Shenzhen Special Economic Zone in 1982. By the end of 1995, China had registered 519 representative offices of overseas banking institutions, 142 business organizations, including 120 branches of foreign banks, five Sino-foreign jointly funded banks, five solely foreign-funded banks, five foreign financial companies, one Sino-foreign jointly funded investment bank and six foreign insurance companies. Foreign banks and financial companies currently have total assets approaching US\$20 billion. The institutions are mainly distributed in 15 cities—Shanghai, Shenzhen, Guangzhou, Xiamen, Beijing, Tianjin, Dalian, Nanjing, Qingdao, Wuhan, Ningbo, Fuzhou, Zhuhai, Shantou and Haikou.

Shanghai has long been a magnet attracting international banking institutions. Since the city received approval to introduce foreign banking institutions in late 1990, famous international banks such as the Citibank of the United States, the Banque de l'Indochine of France, the Netherlands Trading Bank and the Chartered Bank of Great Britain have moved their China headquarters to it. International securities companies, including Morgan Stanley, Merrill Lynch and Normura, have also seized the opportunity to establish a niche in Shanghai. In fact, two-thirds of the world's top 50 banks have opened branches in the city. By the end of 1995, banking institutions in more than 10 countries had opened 40 business branches in Shanghai, with the number representing about 30 percent of the nation's total. Shanghai has initially formed a complete foreign financial sector composed of foreign banks, foreign financial companies and foreign insurance companies.

*The ongoing structural reform and opening of China's financial sector to the outside world has been accompanied by an influx of overseas financial institutions hoping to establish a foothold in the country. The Nanyang Commercial Bank Ltd. was the first overseas bank to enter the Shenzhen Special Economic Zone in 1982.*

According to the statistics provided by Xiao Yunquan, from the Foreign Financial Institutions Management Department of the People's Bank of China, the total assets of the 127 operating foreign banks and foreign financial companies had reached US\$19.14 billion by the end of 1995, with their balance of outstanding loans standing at US\$12.74 billion, the balance of deposits at US\$3.14 billion, and tax and profit payments at US\$140 million. The majority of foreign banks earned profits within only one to two years. Statistics indicate that the total assets of foreign banking institutions in Shanghai stands at US\$9 billion, or 45 percent of the total assets of foreign banking institutions in China, with their total profits rising by 55 percent by 1994.

Foreign insurance companies in China also recorded significant progress in 1995. The total policy premiums, excluding life insurance policies, of the two foreign insurance companies in Shanghai reached 64 million yuan. The life insurance premiums of the Shanghai Branch of the US International Group alone approached 400 million yuan, accounting for 25 percent of Shanghai's total life insurance premiums for the year. The business activities of foreign insurance companies helped introduce new insurance coverage and promotion methods to China. Chinese insurance companies have not as yet introduced 15 of the 49 types of insurance coverage provided by foreign companies.

Financial data through late 1995 indicates that the balance of outstanding loans of foreign banks in China totalled US\$11.52 billion. In terms of the total funds available, US\$2.63 billion was in the form of domestic deposits, with the remainder coming from foreign sources. The significant volume of foreign capital introduced from abroad has promoted

the development of local foreign-funded enterprises and China's export-oriented economy.

The survey of the operations of foreign financial institutions indicates that the majority have operated in accordance with the law. However, certain problems have emerged with regard to violations of China's foreign exchange control and other financial regulations on the part of individual foreign financial institutions. The People's Bank of China has answered the problems by adopting measures to strengthen supervision and management over foreign financial institutions. ■

## Jiang: Science Key To Bigger Boom

President Jiang Zemin calls upon the Chinese science community to spare no efforts in promoting economic and social progress through technological advancement.

Jiang made the remarks while addressing the opening ceremony of the Fifth National Congress of the Chinese Association for Science and Technology held in Beijing May 27-31.

"We must concentrate our strength on the economy, by giving full play to the role of science and technology," he said.

The president urged scientific workers to always bear in mind the importance of economic construction.

He also asked them to improve basic research to catch up with the world's leading technology and further enhance cooperation with their counterparts around the globe.

Jiang described dissemination of scientific knowledge as another task necessary to upgrade worker skills.

By the turn of the century, the president advised, more citizens should be trained in science, engineering, agriculture, medicine, management and high technology.

In addition, governments at all levels must pay more attention to improving working and living conditions for scientists and technological workers. ■

for the next 15 years set ambitious goals in hopes that the power industry will fuel dynamically the growing economy.

By the year 2000, China will increase its installed power generating capacity to 300 million kw from 214 million kw last year. Power production in 2000 will be 1400 billion kwh, compared with 1000 billion last year.

"To boost the industry, China should employ technology as well as management systems and training, and attract foreign investments and financing through increased global cooperation," said Percy Barnevik, chairman of Switzerland-based ABB Asea Brown Boveri Ltd.

Ye noted that China will set up a number of large thermal power plants, hydropower plants, nuclear power plants, super high voltage transmission and distribution projects, and clean coal technology model projects during the next five years.

"We have reason to believe," he said, "that we'll have a lot of opportunities to cooperate with ABB, which leads technology and quality in these fields." ■

## More Electricity, Benign Environment

Strengthening international cooperation is pivotal to China's reforms in the electric power industry, said Ye Qing, vice-chairman of the State Planning Commission (SPC).

The official was addressing a two-day conference on May 23 jointly held by *21st Century Power*, the SPC and ABB China Ltd. in an effort to meet the challenge — sustainable development with minimal environmental impact.

China's first Electricity Law, enacted last April, mandated the power industry to expand faster than others. The law encourages investment in the industry and emphasizes environmental protection. Further restructuring of the industry is another subject underlined by the law.

The Ninth Five-Year Plan (1996-2000) and the outlook



SPC Vice-Chairman Ye Qing greets Percy Barnevik, chairman of ABB Company at the conference.

WU FUBIAO

## Health Food Cries For Quality Control

A national quality control campaign for health foods will be launched between June and August, according to the State Administration for Industry and Commerce (SAIC).

The rising living standards among Chinese people and the persuasive information carried by the mass media have fueled the health food industry in recent years.

Statistics indicate that over 3,000 manufacturers currently provide approximately 3,000 varieties of health food nationwide.

Quality problems have arisen because of inconsistent standards governing production and quality control for such products. Sanitation standards also vary greatly among manufacturers.

More often than not, consumers find it hard to know what they are buying. Some manufacturers and dealers have damaged the market by profiteering, fraud and poor management.

A recent government survey of food and tonics made of edible bird's nests — a traditional nourishing food in China — in Beijing, Guangzhou and Shanghai suggested that more than half of such products did not contain any elements of bird's nests or had only a minuscule content, while some others were downright counterfeit.

In northeastern China's Shenyang Province, government departments seized 16 fraudulent tonics which fell short of state standards in terms of fat and protein content and allowable bacillus content.

The state is also cracking down on false advertising for such products which make outlandish or unverifiable claims for "special cures."

This type of fraud makes it even worse for tonics and health products which offer legitimate and important relief or health benefits, says Zhao Fengwu, an official in charge of market supervision and administration under SAIC. Hence it is urgent that reliable, standardized quality control be put into effect as soon as possible, he told a press conference in Beijing on May 23.

A program for inspecting health foods has been adopted by the SAIC and will be implemented over the next three months, Zhao noted.

During the campaign, he said, market administrative officials will make raids on illegal businesses producing or marketing shoddy and substandard health foods. Also targeted are companies infringing on exclusive trademarks for such products and those cheating customers with false or unverifiable claims in advertising.

The crackdown, one of six campaigns launched by SAIC for consumer protection this year, is designed to promote fair trade, implement consumer protection laws, and standardize market administration. The SAIC has designated 1996 the "year of fair trade practices."

One campaign completed in April focused on improving quality control in farming materials. Last year alone, a disturbing number of hardworking farmers had their crops and profits ruined by fake pesticides, fertilizers and seeds.

The campaigns this year have effectively prevented such malpractice and subsequent damage, according to another SAIC official in charge of the fair trade practices.

by *Chen Qiuping*

## Reform Targets Textbook Updating

China's higher education reform during the 1996-2000 period will target the contents and the structure of the curriculum, according to a recent meeting of university and college deans from across the country.

About 20,000 professors and scholars have applied to participate in the reform effort, which was launched by the State Education Commission (SEC) last year.

The textbooks currently used by Chinese college students were compiled in the 1950s and 1960s, and they do not include new developments in science and technology. Faculty members and students alike complain that the textbooks have lagged far behind China's expanding market economy.

The SEC has allocated a large sum of funds for this reform. A group of experts have been called together to coordinate the endeavor.

Several thousand education experts are compiling 300 to 500 series of new textbooks for 2.8 million college students. That means 80 to 90 percent of all existing textbooks for major sub-

jects will be updated by the end of this century.

Between 10 and 20 colleges and universities will be given free rein in English language teaching, rather than having to follow the present uniform, test-oriented method. Teachers will decide what to teach and how to test their students.

Deans of some universities suggest that sciences be taught in combination with engineering, and arts with sciences. In China, a college student majoring in arts is not required to learn mathematics, and students from mathematics departments do not have to learn physics. ■

## Measures Outlined Against Waste Import

Chinese foreign trade departments are urged to stop all garbage flowing into China through foreign trade channels.

The Ministry of Foreign Trade and Economic Cooperation (MFTEC) asked these departments not to underestimate the issue of imported foreign garbage.

A MFTEC official announced a series of new measures at the meeting. He called for all departments concerned to conduct a thorough examination and extensive check of all signed contracts concerning possible imports of waste and used materials and delivered goods.

They should properly handle all items regarded as foreign garbage in line with relevant laws and regulations and take emergency steps lawfully dispose of those goods on the way to China, according to the official.

Foreign trade departments should closely examine shipments at the point of origin before they leave for China.

From now on, any import of waste and used materials will be subject to a stricter licensing process, and no such contract can be signed without official approval, the official stressed.

The credibility of foreign exporters will be closely checked, with all the quality indicators for imported materials unambiguously explained in contractual agreements.

Moreover, imported materials should be accompanied by examination certificates issued by authoritative bodies, and on-the-spot checks will be required for technically qualified importers. ■

# Jiang's African Visit Successful



WANG XINQING

President Jiang and Zimbabwean President Robert Mugabe toast to lasting Sino-African friendship.

by Our Staff Reporter Zeng Peigeng

**P**resident Jiang Zemin's state visits to Kenya, Ethiopia, Egypt, Mali, Namibia and Zimbabwe between May 8 and 22 were a resounding success. The tour, Jiang's first visit to Africa, also marks the first time China's top leader has ever set foot on this continent.

During the 15-day visit, Jiang held a number of in-depth talks with the leaders of the six countries, exchanging ideas and opinions on building a Sino-African relationship for the 21st century and other issues of common concern. A common understanding was achieved on most issues. The highlight of the visit was Jiang's speech, *Toward a New Historical Milestone in Sino-African Friendship*, delivered at the headquarters of the Organization of African Unity (OAU) in Addis Ababa, Ethiopia.

During the visit, Jiang also held talks with Salim Ahmed Salim, secretary-general of OAU, and Ahmed

Esmat Abdul-Maguid, secretary-general of the League of Arab States on strengthening ties with the two regional organizations.

In addition, 23 cooperative agreements in economic and technological areas were signed between China and the six countries during Jiang's visit.

Jiang and his entourage were received warmly everywhere. The local media gave full coverage during his visit, attracting great attention in the continent and beyond.

Jiang's visit has achieved the following results:

Laying the foundation for building a Sino-African relationship of long-term stability and all-around cooperation for the 21st century.

The end of the Cold War ushered in complicated and profound changes in world politics, but detente remains the predominant trend, making way for the development of multi-polarity. The majority of developing countries have seen not only a significant rise in their political standing but also a rapid economic growth. However, hegemony

and power politics are still hounding world peace, and the disparity between wealthy and impoverished countries is still widening.

Currently, Africa has overcome the aftermath of radical political changes caused by the end of the Cold War. For a time the African continent was rocked by calls for political pluralism and economic liberalization in the wake of the radical political changes in the USSR and Eastern Europe. Now African countries are exploring political and economic paths suited to their national conditions as they strive for a new era of stability and development.

During his talks with African leaders, Jiang stressed that Africa, a large continent with abundant resources, inherently has huge development potentials. Without peace and development in Africa, world progress and prosperity is out of the question. Jiang said that China's basic policy toward Africa is to consolidate and develop sound ties of "equal treatment, sincere friendship, unity and cooperation, and mutual development."



ZENG PEIGENG

Chinese President Jiang Zemin (second left) visits a children's center built with Chinese assistance near Windhoek, Namibia.

Friendly Sino-African relations date back a long time. Both have endured a similar misery under colonialism and imperialism. The founding of New China and the independence of African countries started a new era in their relations.

As the 20th century draws to a close, President Jiang declared that China is willing to strengthen and develop long-term relations and comprehensive cooperation with African countries in the 21st century. To this end, Jiang proposed the following guiding tenets.

- China and Africa should become trustworthy, "all-weather" friends, despite the lapse of time, vicissitudes in the world and international political traumas.

- China and African countries should treat each other equally, respect each other's sovereignty, and never interfere with each other's internal affairs. China will always support African countries in their just struggle for national independence, sovereignty and dignity, and respect their choice of

political system and development path suited to their own conditions.

- China and Africa should seek mutually beneficial and common development. China will continue to provide as much unconditional government aid to African people as it can afford. Meanwhile, China will reinvigorate previously-aided projects by means of joint venture or cooperation, and encourage Chinese companies to invest in Africa in the hope that joint ventures become the major form of Sino-African economic cooperation.

- China and Africa should strengthen consultation and cooperation in international affairs. On the world political stage, China will unswervingly stand by impartial, just treatment of African countries. China believes that African countries have equal access to participate in international affairs, and urges the international community to listen seriously to the voice of Africa and respect the opinions of African countries.

- China and Africa should join hands to face the future and, together

with other peace-loving countries and peoples, to create a better world.

These guiding tenets advanced by President Jiang were enthusiastically affirmed by the leaders of the six countries. President Daniel Arap Moi of Kenya said, "I wish to reiterate the value Kenya places on our existing friendship with the People's Republic of China. It is our hope that our bilateral cooperation will be strengthened for our mutual benefit."

Namibian President Sam Daniel Nujoma told President Jiang that Africa is China's trustworthy friend. He voiced great appreciation for China's African policy and believed President Jiang's visit will bring African-Chinese friendship to new heights.

**Boosting continued Sino-African economic and technological cooperation.**

During his visit, President Jiang also discussed with African leaders the expansion of Sino-African economic and technological cooperation. A total of 23 contracts, agreements, letters of intent and memoranda were signed



between China and the six African countries.

In economic as well as political matters, China needs Africa as much as Africa needs China. In the past, Sino-African economic and technological cooperation was usually conducted between governments. In recent years, however, China, because of internal economic reforms, has slightly modified its aid policy so that businesses from both sides are freer to cooperate. President Jiang told his African counterparts that the Chinese government, while continuing inter-governmental assistance, will actively encourage large Chinese companies to seek extensive cooperation with African nations. This new, more interactive approach to foreign aid is welcomed by the African countries.

At a banquet in honor of President Jiang, Kenyan President Moi said, "It is my pleasure to invite Chinese businessmen to take advantage of this unique opportunity to invest in Kenya either directly or through joint ventureships with Kenyans in the various sectors of our economy."

Prime Minister Meles Zenawi of Ethiopia said during his talk with Jiang that while Ethiopia and China have succeeded in economic and technological cooperation, a large potential remains. "We hope more Chinese business people will invest in Ethiopia and participate in the economic reconstruction of Ethiopia."

Namibian President Nujoma told President Jiang that since Namibia's independence, a number of Chinese companies have had good cooperation with Namibia, and he hopes the two sides will in explore new avenues for economic and trade ties.

President Alpha Oumar Konare of Mali also expressed his hope to forge new channels for cooperation between medium- and small-sized businesses.

A new spirit of creative cooperation can be seen in many of the 23 agreements signed during Jiang's visit. The Sino-Kenyan joint venture for plate glass manufacturing is one example; the China-Malian memorandum on establishing an investment and development trade center in Mali, and a letter of intent between China's Capital Iron and Steel Co. and Zimbabwe Iron and Steel Co. to repair Zimbabwe's No. 4 furnace are others.

China's sincere and generous aid is

highly appreciated by the African countries. One after the other, the African leaders noted that China provides aid by overcoming its own difficulties, which makes it all the more sincere. During his visit President Jiang lauded all African nations for their solidarity and diligence. "More than 600 million African people have won their great political liberation," he said. "Fifty-three independent countries now stand on the African continent. The soon-to-pass century will be recorded in African history as the 'century of liberation.' The next millennium will be recorded as the 'century of development'".

#### **Strengthened consultation and cooperation between China and Africa in international affairs.**

The six African countries made clear their support for China's stand on its reunification and vowed not to have

Prime Minister Meles of Ethiopia also voiced his opposition to any interference in their internal affairs in the guise of human rights and democracy.

President Jiang appreciates the support rendered to China by the African nations. "We respect African countries' choice of political system and development orientation in accordance with their own specific conditions. We never interfere with their internal affairs, and we oppose any other countries imposing their ideology and social development mode onto African countries. We resolutely support African countries' just struggle to safeguard their independence, sovereignty and territorial integrity. We support African participation in international affairs and their efforts to safeguard their legitimate rights," Jiang said.

Through talks, Chinese and African leaders reached a common understand-



Malian hunters welcome Chinese guests with rifle shots, the grandest welcoming ceremony in the Malian tradition.

ZENG PEIGENG

any official relations with Taiwan in any form, reiterating that the People's Republic of China is the sole legitimate government of China, and Taiwan is an inalienable part of China's territory.

African leaders, during their talks with Jiang, condemned those Western countries for their hypocritical ill-intended attacks on China in human rights. Kenyan President Moi said, "We fully support China's stand on human rights. China has a civilization of 5,000 years. Nobody else is entitled to tell the Chinese how they should live. We are confronted with the same pressure from outside, but we shall persist in our way of development."

ing that high-level exchanges and consultations between China and Africa on international issues are essential for the establishment of a new world political and economic order.

In his final remarks toward the end of his African tour in Zimbabwe, President Jiang said, "During my visit in Africa, I have witnessed the African people's unrelenting efforts and great achievements in maintaining political stability and economic development. I'm convinced that the African people, who have won their independence and liberation with perseverance, will also realize development and prosperity with wisdom." ■

# News Briefing by the Chinese Foreign Ministry

**D**uring the regular news briefings on May 28 and 30, 1996, Shen Guofang, spokesman for the Chinese Foreign Ministry, announced that at the invitation of the governments of Sweden and Finland, Vice-Premier Zou Jiahua will pay a visit to these two countries from June 2-10.

The spokesman then opened the floor for questions.

domestic development; in addition to governmental ties, Chinese and African enterprises should play a leading role in bilateral cooperation.

**Q: Recently the United States accused China of selling 2,000 automatic weapons there. What's your comment on this report?**

**A:** The event is not clear yet and needs further investigation. The Chinese government has strict regula-

ences. China is ready to develop and improve Sino-US relations.

One principle issue for Sino-US relations is Taiwan. The principles enshrined in the three Sino-US joint communiqués must be observed. We are optimistic about relations with the United States because a good relationship serves the fundamental interests of both peoples.

**Q: South African Foreign Minister Alfre Nzo recently said that South Africa would establish diplomatic relations with China within two months. What's your comment on this?**

**A:** Only when South Africa observes the relevant resolutions of the United Nations and recognizes the People's Republic of China as the only legitimate representative of China can the two countries establish diplomatic relations. Taiwan is part of China, and South Africa must sever diplomatic relations with Taiwan first.

**Q: It is reported that China and the United States will soon resume dialogue on the issue of intellectual property rights (IPR) protection. Is it likely any agreement will be made?**

**A:** China believes that discussions and negotiations are the only way to settle the issue of IPR protection. Our attitude is sincere and serious, because such protection is needed as part of our own reform and opening-up to the outside world. We have set up special agencies to protect IPR by supervising manufacturers and working out special, detailed regulations.

It must be noted that IPR protection remains an important issue in many countries. We hope this issue will not be politicized. We request the United States objectively consider the efforts made by the Chinese government in this area. We hope the United States will adopt a pragmatic attitude in this round of discussions and be sincere about making progress.

If the United States imposes sanction against China, it will not settle the issue but, on the contrary, will only make the matter more complicated. ■



Spokesman Shen Guofang.

PI DAWEI

**Q: Was President Jiang Zemin's recent visit to six African countries aimed at supporting one faction or another there?**

**A:** The main purpose of President Jiang Zemin's visit to African countries was to develop unity and cooperation with the developing countries. China and African countries are all developing their economies. Jiang's visit proves that China has always attached importance to unity and cooperation with developing countries, including African ones. During his tour to the six African countries, President Jiang and African leaders reached a common understanding that strengthened ties are in conformity with the countries' fundamental interests; China and Africa should learn from each other and seek common development in their

tions on the transfer and sales of weapons. Restrictions on sales of conventional weapons must be strictly enforced. The Chinese government will severely punish, upon discovery, any company or individual that privately sells weapons without government approval.

**Q: Will the event have an impact on Sino-US relations?**

**A:** China and the United States are both influential countries in the world and permanent members of the UN Security Council. They share important responsibilities for world peace and stability. There are many common interests between the two countries but, of course, there are many disagreements as well. The leaders of the two countries should expand common ground and narrow their differ-

# Opening Effort of the Banking Sector

by Our Special Reporter Hu Shuli

**D**omestic and overseas industrialists and other business people are paying great attention to and placing ever-greater hope in China's banking reform. The following interview with Zhu Xiaohua, vice-president of the People's Bank of China, addresses a number of basic issues concerning the reform.

**QUESTION:** There is currently a strong foreign demand, particularly in the United States, for China to fully open its banking service sector. Many feel the sector has not as yet opened sufficiently and that the pace of opening has been relatively slow. How do you respond?

**ANSWER:** I've closely monitored the *Wall Street Journal* and various other foreign financial publications. In the process, I've found that the United States lacks a thorough understanding of the prevailing situation in China. In fact, China's banking service trade has

Since 1982, Japan's Daiwa Securities Co. has sold 19 foreign-debt packages issued by China.

already attained a relatively high degree of opening which has elevated it to the forefront among Asian countries. The country itself has greatly enhanced its understanding of the issue.

In the early 1980s, to cater to the internal needs of reform and opening and attracting foreign capital, China decided to open the banking sector to the outside world by allowing foreign banks to establish branches on the mainland.

In 1984, after realizing that the entrance of foreign-funded banking institutions had helped spur the reform of domestic banks, China decided to improve the level of banking service by engaging in competition with overseas banks, a move which represented a giant step forward in the opening effort.

Since 1990, the nation's banking service sector has opened its doors ever wider to the outside world. Foreign business people, previously confined to establishing branches only in special economic zones, were first allowed to open branch banks in Shanghai's Pudong New Area and, a short time



WU MING

Vice-President Zhu Xiaohua.

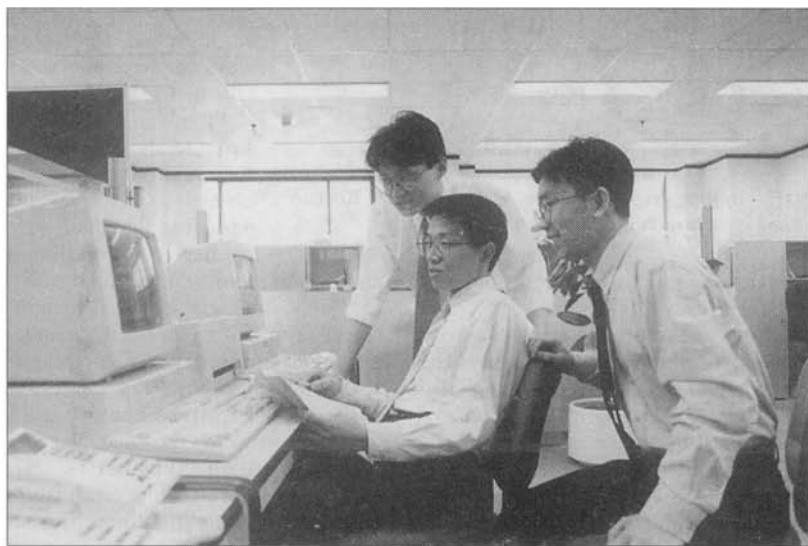
later, in 10 major cities.

Today, well over 100 branches of foreign banks are operating in 20 Chinese cities. The rate of opening has in fact far exceeded that of Japan, the Republic of Korea, Thailand, Indonesia and various other Asian countries.

While domestic banking institutions are still subject to various restrictive policies, foreign banking institutions in China enjoy a wide degree of flexibility. Foreign banking institutions' degree of opening is even higher when contrasted with China's low levels of marketization and banking operation mechanisms during a period in which the nation's economy is in transition from a planned to a market-oriented pattern.

In fact, throughout the course of opening in recent years, the extent of opening of the banking sector has outstripped that of foreign trade. Simply stated, this means that the extent of opening of invisible trade has already exceeded that of visible trade. As a result, while China has registered an overall favorable balance of trade with the United States, it has at the same time recorded a deficit in service trade, including banking technology and fran-

XUE CHAO



chise transfers which were previously overlooked, but are now emphasized.

**Q: Is the business scope of foreign banks still subject to significant limitations? How do you evaluate the qualitative level of the country's opening effort?**

**A:** The quality of opening should be comprehensively scrutinized. In fact, with the exception of business activities related to the Renminbi (RMB), foreign-funded banking institutions are already heavily involved in foreign exchange credits and deposits, as well as foreign trade settlements and various other business activities.

For example, the share of business conducted by Shanghai's foreign-funded banks now accounts for nearly 40 percent of the city's total, double the level of only a decade ago. The absolute business volume has been subject to even more rapid growth.

In addition, China is fairly open in terms of various financial businesses. With the sole exception of A-shares which restrict the participation of foreign investment banks, such institutions are permitted to float both B- and H-shares issued by Chinese enterprises. In this regard, however, many Asian countries stress that such activities must be exclusively conducted by domestic banking institutions. China has also permitted foreign businesses to establish both insurance and financial companies.

Nevertheless, a wide gap continues to exist in terms of fulfilling the requirements of the World Trade Organization as a result of China's failure to realign its domestic banking and monetary systems.

Since 1994, the country has made great progress in establishing a standard foreign-exchange system, and has basically achieved the convertibility of the RMB under current accounts. Currently, non-trade items are still subject to some restrictions, which themselves will most likely be lifted within the next two years. China's banking service sector will open even wider to the outside world in ensuing years.

**Q: Foreign banks are most con-**



The Beijing representative office of the Russian Foreign Economic Bank has constantly developed relations with relevant Chinese businesses.

XUE CHAO

**cerned about the opportunity to engage in local currency transactions. What are the main factors restricting the participation of foreign banks in such activities? When will China open this key area?**

**A:** There are essentially two direct

with foreign counterparts on an equal footing.

Second, with regard to the marketization of the interest rate market, the current interest rate differentials are negative, and thus the opening of the RMB would prevent foreign banks from operating normally in such an underdeveloped market. China will refrain from immediately opening the RMB in order to protect the interests of foreign banks.

Nonetheless, we cannot wait until all problems have been resolved. Reform will promote opening, which in turn will spur reform. Pilot projects for opening will be launched to explore ways to overcome shortfalls in the market.

Simply stated, we will strive to shorten the time for removing existing obstacles. However, we must first introduce varying degrees of opening in



XUE CHAO

Members of the Beijing representative office of the Korean Development Bank closely monitor China's banking reform.

reasons limiting the full opening of local currency transactions.

First, the reform of domestic banking institutions is limited by the progress in the reform of state-owned enterprises, and the marketization of the overall banking sector remains at a low level, particularly in terms of lending and borrowing. These factors prevent domestic banks from competing

an effort to promote all-round opening. Decisions have already been made to select a number of foreign-funded banks in Shanghai to participate in RMB-related transactions on a trial basis. The plan will be introduced following approval by the State Council.

**Q: Foreign businesses are extremely interested in establishing investment banks in China. Morgan**

**Stanley of the United States recently pooled funds with the People's Construction Bank of China to jointly establish an investment bank. Will other overseas investment banks be allowed to operate in China in the near future?**

**A:** We will proceed cautiously in this regard since China's stock market is still immature and the law on securities transactions has not yet been promulgated. Moreover, China lacks experience in supervising capital flows. The Mexican incident in particular cast a shadow on the progress of the opening of China's banking sector as a whole. Americans themselves pale at the mere mention of the incident.

All sovereign states are extremely cautious when they come to the operations of speculative investment banks on the global capital market. China is no exception. In short, the country plans to open the sector initially, perfect the management framework, and improve the management throughout the process.

**Q: A recent nationwide survey of the market system carried out by some research institutions indicates that the foreign exchange market is in the best shape. The market is controllable and reflects both supply and demand. In addition, the market is highly efficient. What are the main experiences involved? How will China achieve the free convertibility of the RMB?**

**A:** The framework for the foreign exchange market is well designed and offers a greater degree of transparency, regardless of the fact that it is only partially open. Businesses cannot enter the market at will, but instead must fulfill all government requirements.

This also indicates that China's current circumstances require that the establishment of the financial market proceed gradually, one stage at a time. Otherwise, the market will be subject to chaos if the door is opened without any controls, or will face a dead end if rigid controls are instituted.

The existing stable exchange rate and the continued appreciation of the RMB depend on confidence in the existing market system. The crux of a stable market lies in confidence, which in turn influences the relationship between supply and demand.

The free convertibility of the RMB will eventually depend on the marketi-

zation of interest rates and the balance of international payments. The country's current international balance of payments is still subject to fluctuations. Therefore, we expect to achieve the free convertibility of the RMB under current accounts by the turn of this century.

**Q: China's undeveloped capital market has adversely affected fundraising activities. What are your views concerning development of the capital market, particularly expansion of the bond market?**

**A:** The lagging reform of state-owned enterprises prevents the timely repayments of issued bonds, which in turn transforms the capital market into a credit market. The capital market

ventionally issued in London, with no such activities carried out in Birmingham.

China's bond market might possibly be centered at the Shanghai Stock Exchange. Given current national conditions, quotas for bond issues will continue to be allocated to each locality, while bonds will actually be issued in Shanghai, which will also serve as the center for listing securities. The establishment of a secondary market will allow bonds to flow freely and stimulate nationwide investment, thereby imposing even greater pressure on enterprises.

China's capital market is chiefly managed by the State Securities Commission, which is responsible for



XUE CHAO

**The Beijing representative office of the Banque Nationale de Paris which once organized a consortia loan for the Daya Bay Nuclear Power Station in Guangdong Province.**

requires many basic factors, such as the management ability and clearly defined property rights of enterprises.

Under the existing circumstances in which the reform of state-owned enterprises has not as yet yielded evident results, the basic factors for the existence of China's capital market fail to exist, and thus market development will be hampered.

In terms of the development of the bond market, I prefer the selection of two or three national bond-issuance centers which can become large-scale, concentrated bond markets. For example, in the United States, the issuance of bonds is concentrated in New York, and it is relatively difficult to float bonds in Los Angeles. In Britain, bonds are con-

designing the securities market. However, the capital market represents a wide-ranging concept which also covers purchases and mergers of enterprises.

A few years ago, many localities established property rights trade centers. Some have closed, but others remain in operation. I suggest such centers continue to develop under improved management suited to China's national conditions. Their development will particularly benefit small and medium-sized enterprises. Such enterprises will be able to acquire trade information from the property-rights market and will thus be able to compare prices, with both aspects further promoting the enterprise reform. ■

# Progress in Reform of State-Owned Enterprises

by Our Staff Reporter Li Rongxia

In 1995, the state designated the reform of state-owned enterprises as a focus of restructuring the economic system, with pilot work related to the reform unfolding nationwide.

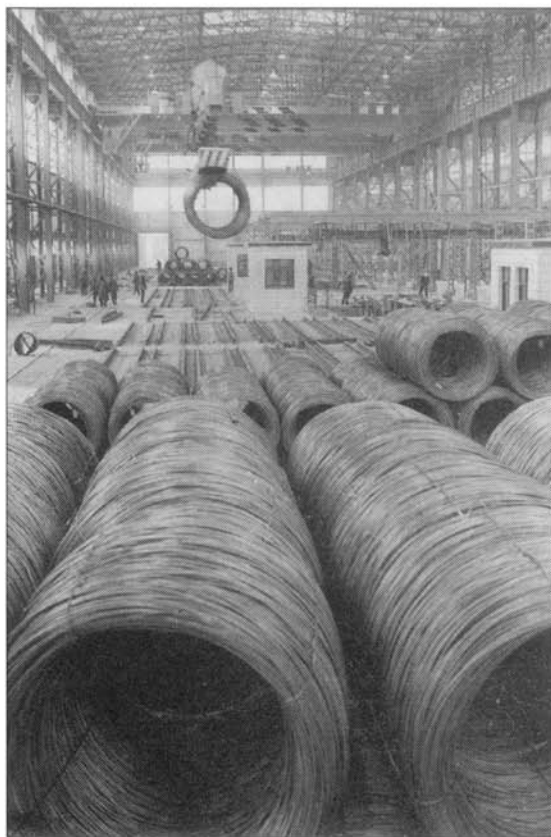
Following State Council approval, 100 enterprises piloted the establishment of a modern enterprise system, 18 cities introduced the program to optimize capital structures, and 57 enterprise groups and three state-holding companies were selected as experimental units. More than 2,000 enterprises in various provinces, autonomous regions and municipalities have also joined in efforts to establish a modern enterprise system.

According to Wang Zhongyu, min-



XUE CHAO

Reform measures have enabled the Beijing Wristwatch Plant to overcome deficits and raise profits to a projected 4 million yuan.



ister in charge of the State Economic and Trade Commission, major problems facing state-owned enterprises include inflexible mechanism, irrational structure, heavy social burdens and weak enterprise management. The purpose of reform centers on gradually solving these problems.

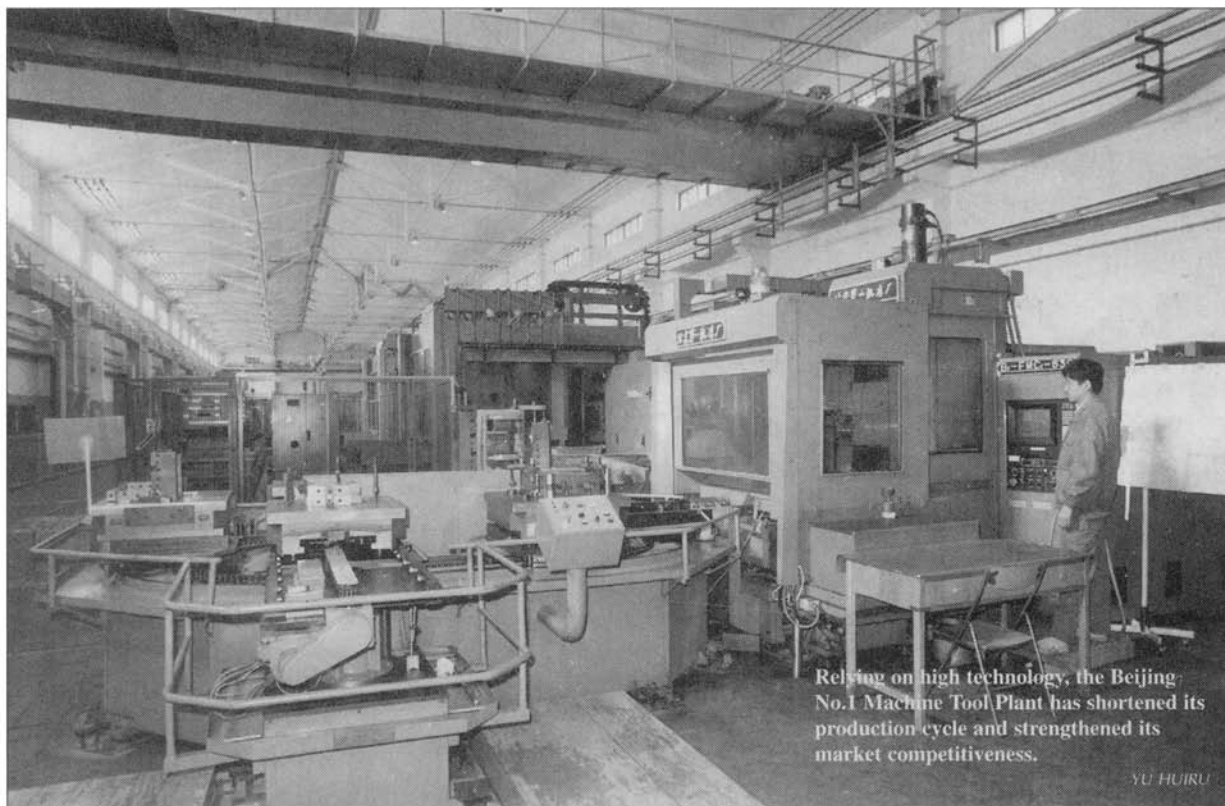
Wang noted that the bearing capacity of the state, enterprises and the work force, as well as the differing conditions of various state-owned enterprises determine that the

**Products turned out by the Baotou Iron and Steel Works using a US made high-speed wire-rod production line with an annual output of 380,000 tons.**

WANG YEBIAO

reform cannot follow a single mode. Therefore, the central government has selected experimental units to determine approaches which can guide others.

Proceeding in line with the Corporation Law and their actual conditions, the aforementioned 100 enterprises have drafted implementation plans, selected the mode of system reform, defined promotional objectives, formulated standardized constitutions for corporations, and defined legal-entity management structures. In addition, they have clarified the power and responsibilities for decision-making, executive and supervisory organizations. The draft implementation plans of 90 enterprises have been approved, with 38 enterprises currently operating according to plan. Various experimental enterprises, especially those assigned to transform into exclusively funded state-owned companies, have proceeded in line with the parent company-subsidary system. They have reorganized their second-class units, or in some cases entire production units, into limited companies or limited liability companies funded by multiple financiers.



Reliance on high technology, the Beijing No.1 Machine Tool Plant has shortened its production cycle and strengthened its market competitiveness.

YU HUIRU

Up to now, the 100 trial enterprises have established 384 fully capitalized subsidiary companies, 437 subsidiary holding companies, 310 sub-companies, and 619 shareholding companies, thereby enhancing the control and permeability of the state-owned assets of the enterprises.

The establishment of the corporation system has led to the formation of internal-enterprise balancing mechanisms; the simplification of management institutions and personnel structures; the significant readjustment of internal management modes and organizations; and the introduction of mechanisms to place qualified personnel on posts through competition. The combined efforts have greatly improved economic returns.

Statistics through the end of 1995 show that the 100 experimental enterprises had amassed total capital assets of 308.3 billion yuan, up 15.5 percent on the year before. They recorded total sales revenue of 234.34 billion yuan, up 11.67 percent, and realized profits of 12.94 billion yuan, a rise of 12.6 percent. The enterprises have transferred 93,000 redundant workers to other jobs, and by so doing have reduced

total expenditures by 2.6 million yuan.

The 18 pilot cities engaged in efforts to optimize capital structures have made significant progress in capital increment, technical renovation, the transfer of redundant workers, and in promoting mergers.

The 56 experimental enterprise groups have readjusted relations between parent and subsidiary companies based on property rights outlined in the Corporation Law. Groups exhibiting appropriate conditions and State Council approval then function as owners of state-owned property.

Despite the initial progress made in the reform of state enterprises over the past year, the rate and actual effect have fallen far short of expectations. Greater effort must be made to accelerate experimentation related to establishing a modern enterprise system.

Chen Qingtai, vice-minister in charge of the State Economic and Trade Commission, said endeavors must be focused on the following four areas over the next few years:

1. Solving the problem of no distinction between the functions of government and enterprises;
2. Strengthening the management

and supervision of state-owned assets;

3. Establishing a social security system at the earliest possible date; and

4. Appropriately reducing the heavy burdens currently shouldered by enterprises.

Chen said that to solve existing problems facing state-owned enterprises, it is imperative to adhere to comprehensive treatment and combine reform with strengthened management, thereby enhancing the overall quality of state-owned enterprises and achieving comprehensive effects with limited inputs.

Enterprise reform is highly significant during the Ninth Five-Year Plan period (1996-2000) due to the fact that large state-owned enterprises are vital to the national economy. Enterprise reform has emerged as a key issue related to improving the operations of the national economy and establishing a new economic system. The process of the reform is closely related to the realization of the targets outlined in the Ninth Five-Year Plan and the Long-Range Objectives to the Year 2010.

Large enterprises play an extremely important role when viewed from the standpoint of Western economic devel-



XIONG RUQING

A new production line installed in Chengdu Guoyi Electric Corp. to make special enamel insulated wire used in the production of color TV tubes and refrigerators.

opment. For example, in 1993, 159 US-based top 500 enterprises in the world reported sales revenue accounting for 29 percent of the nation's gross domestic product (GDP); 135 large enterprises in Japan had total sales revenue accounting for 32 percent of the country's GDP; 32 enterprises in Germany registered total sales revenue accounting for 27 percent of its GDP; and France had 26 enterprises with total sales revenue accounting for 25 percent of its GDP.

Statistics through the end of 1994 show that China's 13,700 large and medium-sized industrial enterprises designated as independent accounting units accounted for 3.5 percent of the nation's total industrial enterprises. Yet, their net value of fixed assets and profit and tax payments accounted for 55 percent and 65 percent of respective totals.

The State Council recently issued a circular endorsing the State Economic and Trade Commission's document

entitled Suggestions on Implementation of the Reform of State-Owned Enterprises in 1996. The document suggests that continued efforts should be made to effectively promote various pilot projects for enterprise reform. Efforts should concentrate on the pilot work related to the establishment of a modern enterprise system in 100 large and medium-sized state-owned enterprises designated by the State Council, as well as on adopting various support methods for enterprise reform. In addition, greater efforts should be devoted to supporting cities, focusing on optimizing capital structures, and increasing the number of experimental cities from 18 to 50.

Efforts must also be made to promote the experiment with the organization of 57 enterprise groups and three state shareholding companies. The organizational form and behaviors of the businesses will be standardized in line with the Corporation Law and related documents.

The document also stresses that close attention should be paid to improving the operation of the 1,000 large and medium-sized state-owned enterprises selected by the State Economic and Trade Commission so as to transform them into corporate entities and market competitors which operate independently, assume responsibility for their own profits and losses, have the ability to seek self-restraint and self-development, and effectively play a pillar role in the national economy. Meanwhile, the state will adopt measures to accelerate the pace in reforming small state-owned enterprises.

The document calls on all state-owned enterprises to emulate the management expertise of the Handan Iron and Steel Works and further improve and strengthen enterprise management. (See accompanying report on the Handan Iron and Steel Works carried in this issue.) ■



# Handan Steel Exemplifies Successful Reform

by Jing Ye

**T**he Handan Steel Works (HSW) in Hebei Province, established in 1958, has developed into one of China's 11 largest iron and steel complexes.

Six years ago, however, the works was on the brink of bankruptcy due to high operating costs and a soft market for its products. In 1990, approximately 26 of the company's 28 products were unprofitable. Nonetheless, subsidiary plants continued to release production statements and reports indicating the profitability of all products.

The sharp contrast between the present and past situations was a direct result of the company's internal accounting system based on planned prices. Business accounting under the system failed to accurately reflect the real costs of products and actual production efficiency.

In 1991, HSW initiated an internal reform by introducing a unique operating method based on analog cost accounting. Intensified technical renovations and improved internal management have since allowed the venture to grow from a medium-sized local firm into one of the nation's major iron and steel producers.

The company's total profits and steel output over the past five years have exceeded respective totals in the previous 32 years.

## The Core of Reform

HSW's reform effort has centered on the implementation of "analog cost accounting and bonuses linked to cost quotas".

The initial step in reform was to target costs. HSW replaced its original cost calculation method based on the prime cost of raw materials with the new accounting method which focused on the lowest acceptable market price. Introduction of the new method enabled HSW to calculate costs and profits for various production processes

*The transformation of traditional planned economic structures and operating mechanisms represents the most appropriate reform approach for state-owned enterprises. The Handan Steel Works serves as a typical example of success.*

in accordance with changing market supply and demand.

At the same time, HSW surveyed existing advanced standards of domestic steel enterprises, scrutinized its own record, and analyzed every component of costs to tap the greatest potential benefit.

The limitations of target costs were considered inviolate.

In 1990, the No. 2 Steel Plant, an HSW subsidiary, fulfilled production quotas calculated by the original accounting method based on planned prices, but incurred a deficit of 15 million yuan in terms of the new accounting method.

In 1991, use of the new accounting system dictated that the plant reduce its per ton production costs for steel by 24.12 yuan. The director insisted that fulfilling the target was impossible and repeatedly requested readjustment. The pleas failed to alter the thinking of higher level managers, who were fully aware of the highly competitive market.

Therefore, the plant also used the analog cost accounting method to determine the maximum limit of per ton production costs for steel and introduced a strict cost management system. As a result, the plant effectively reduced costs by 22.5 million yuan from the previous year and earned 2.5 million yuan of profit.

In 1994, the plant succeeded in reducing target costs by 34 million yuan, while at the same time increasing target profits by well over 46 million yuan.

In line with the principle of bonuses linked to cost quotas, target cost quotas are allocated to each subsidiary plant, workshop, working group and individual worker. Each of the HSW's over

28,000 workers is assigned a cost quota.

The contract responsibility system, with remuneration linked to profits, has closely integrated the responsibilities, rights and interests of various sectors and individual workers with the overall economic benefits of the enterprise. Workers exceeding assigned cost quotas fail to qualify for their monthly bonuses, regardless of whether or not they fulfill other quotas. Units failing to accomplish set goals for three successive months face delayed wage increases.

As part of an effort to ensure the validity of cost quotas, HSW conducts monthly inventories of raw materials and fuel stockpiles of each unit, and it organizes a general quarterly audit of financial statements and goods on hand. Cost and profit quotas are readjusted for units submitting balance sheets indicating inconsistencies in goods on hand. Units exceeding cost quotas and failing to fulfill target profit are deprived of all bonuses.

Subsidiaries have been denied monthly bonuses 79 times over the past five years, with wage hikes cancelled for 69 plants and divisions during the same period.

## Restructuring

HSW reduced its total number of subsidiaries and managerial divisions from 503 to only 389 between 1990 and 1995. In addition, the proportion of management personnel to the total work force dropped from 14 percent to 12 percent.

At the same time, HSW has augmented its finance, quality inspection, marketing, planning, budgeting and auditing departments.

For example, the finance depart-

ment currently exercises unified management over finance sections in various subsidiaries and divisions in order to improve the allocation of funds for the enterprise as a whole. And a quality inspection department has been established to ensure the quality of all products.

### Model Transformation

HSW has significantly increased economic returns by accelerating the transformation of operating mechanisms and the mode of production growth.

The analog cost accounting system has helped to link budgeted internal prices with actual market prices, which has ensured that various departments directly feel market pressure. As a result, operational objectives have shifted from blindly pursuing output and production scales to centering on economic returns. HSW has transferred its business focus from production to marketing and now regards cost reductions as a key aspect for increasing competitiveness and profits.

Strict cost management throughout the entire production process has enabled HSW to make the best possible use of assets. The company currently ranks at the forefront in its sector in terms of lowering per ton energy consumption, saving 900,000 tons of standard coal annually.

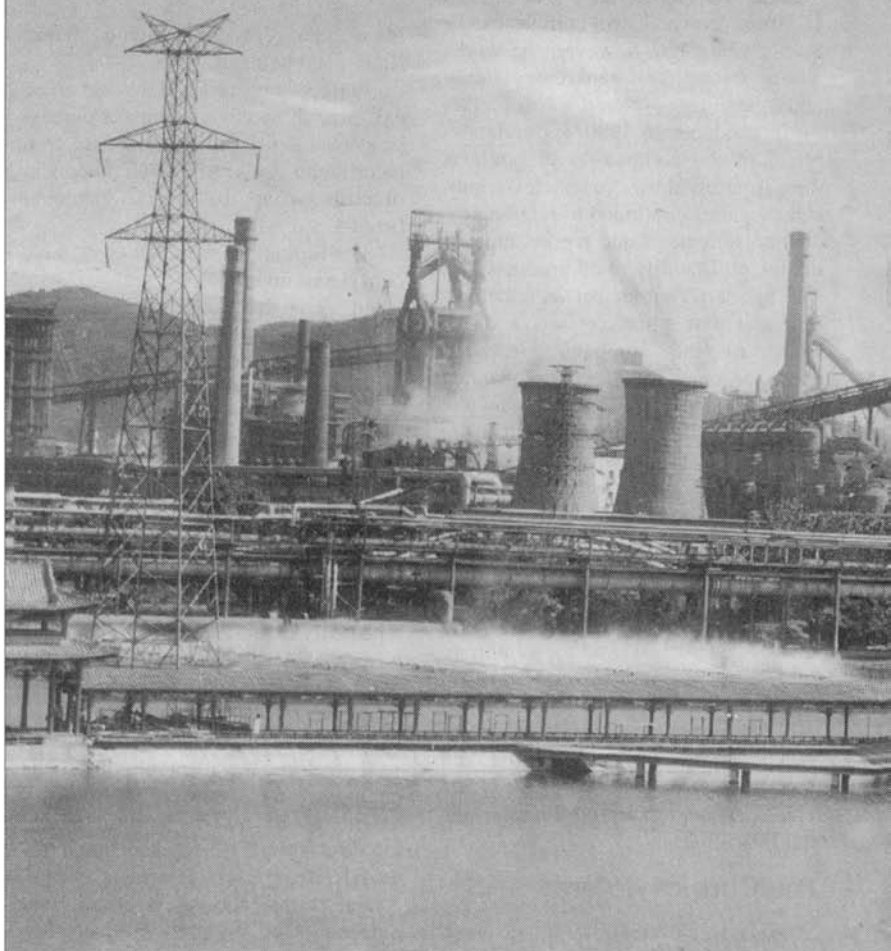
Technical progress has helped the venture reduce costs and accumulate funds for further technical renovations, thus forming a sound production cycle.

HSW's production investment during the Eighth Five-Year Plan period (1991-95) stood at slightly under 2.48 billion yuan, a figure representing only one-third of total investment required to construct a similar complex. Its investment for producing 1 ton of steel was less than 2,400 yuan, with its labor productivity for steel rising by 80 percent from 41 tons to 74 tons.

The company's sales income has jumped dramatically from 1.02 billion yuan to 5 billion yuan over the past five years. Tax payments soared from 160 million yuan to 430 million yuan, with profits rising from 50 million yuan to 700 million yuan, an average annual increase of 93.4 percent. Steel output more than doubled from 1.1 million to 2.15 million tons, and the value of total assets jumped from slightly over 2.78 billion yuan to 7.64 billion yuan. ■

# Ongoing Overha

by Our Staff Reporter Li Rongxia



**T**he Shougang Iron and Steel Co., the largest enterprise in Beijing, employs 240,000 people and is well known both at home and abroad. The company is currently implementing reforms mandated by the state.

Early last year, Shougang was faced with a grim situation. Overstocked and suffering an acute shortage of funds, it was unable to pay its debts, including

taxes owed to the state.

The situation was so bad that maintaining normal operations was virtually impossible.

After taking stock of its crisis, the company's leaders decided to "strengthen capital operation, accelerate scientific and technological progress and improve the quality and efficiency of economic growth."

During the past year, the company

# Environmental Protection In China

Information Office of the State Council of the People's Republic of China

June 1996, Beijing

## Foreword

China is a developing country. Now it is confronted with the dual task of developing the economy and protecting the environment. Proceeding from its national conditions, China has, in the process of promoting its overall modernization program, made environmental protection one of its basic national policies, regarded the realization of sustainable development as an important strategy and carried out throughout the country large-scale measures for pollution prevention and control as well as ecological environment protection. Over the 18 years since its adoption of reform and opening policy, China's gross national product (GNP) has achieved a sustained annual growth of around 10 percent, while its environmental quality has basically steered clear of the outcome of corresponding deterioration. Practice has proved that the principle adopted by China of effecting coordinated development between the economy, the society and the environment has been effective.

As a member of the international community,

China, while making great efforts to protect its own environment, has taken an active part in international environmental affairs, striven to promote international cooperation in the field of environmental protection, and earnestly fulfilled its international obligations. All these have given full expression to the sincerity and determination of the Chinese government and people to protect the global environment.

What efforts has China made to protect its own environment? What is the situation of environmental protection in China? On the occasion of the annual World Environment Day, which falls on June 5, here is a brief account:

## I. The Choice of Implementing a Sustainable Development Strategy

China's modernization drive has been launched in the following conditions: The country has a

large population base, its per-capita average of natural resources is low, and its economic development as well as scientific and technological level remain quite backward. Along with the growth of China's population, the development of the economy and the continuous improvement of the people's consumption level since the 1970s, the pressure on resources, which were already in rather short supply, and on the fragile environment has become greater and greater. Which road of development to choose has turned out, historically, to be an issue of paramount importance to the survival of the Chinese people as well as their posterity.

The Chinese government has paid great attention to the environmental issues arising from the country's population growth and economic development, and has made protecting the environment an important aspect of the improvement of the people's living standards and quality of life. In order to promote coordinated development between the economy, the society and the environment, China enacted and implemented a series of principles, policies, laws and measures for environmental protection in the 1980s.

— Making environmental protection one of China's basic national policies. The prevention and control of environmental pollution and ecological destruction and the rational exploitation and utilization of natural resources are of vital importance to the country's overall interests and long-term development. The Chinese government is unswervingly carrying out the basic national policy of environmental protection.

— Formulating the guiding principles of simultaneous planning, simultaneous implementation and simultaneous development for economic construction, urban and rural construction and environmental construction, and combining the economic returns with social effects and environmental benefits; and carrying out the three major policies of "prevention first and combining prevention with control," "making the causer of pollution responsible for treating it" and "intensifying environmental management."

— Promulgating and putting into effect laws and regulations regarding environmental protection, placing environmental protection on a legal footing, continuously improving the statutes concerning the environment, formulating strict law-enforcement procedures and increasing the intensity of law enforcement so as to ensure the effective implementation of the environmental laws and regulations.

— Persisting in incorporating environmental protection into the plans for national economic and

social development, introducing to it macro-regulation and management under state guidance, and gradually increasing environmental protection input so as to give simultaneous consideration to environmental protection and other undertakings and ensure their coordinated development.

— Establishing and improving environmental protection organizations under governments at all levels, forming a rather complete environmental control system, and bringing into full play the governments' role in environmental supervision and administration.

— Accelerating progress in environmental science and technology. Strengthening research into basic theories, organizing the tackling of key scientific and technological problems, developing and popularizing technology for environmental pollution prevention and control, fostering the growth of environmental protection industries, and giving initial shape to an environmental protection scientific research system.

— Carrying out environmental publicity and education to enhance the whole nation's awareness of the environment. Widely conducting environmental publicity work, gradually popularizing environmental education in secondary and primary schools, developing on-the-job education in environmental protection and vocational education, and training specialized personnel in environmental science and technology as well as environmental administration.

— Promoting international cooperation in the field of environmental protection. Actively expanding exchanges and cooperation concerning the environment and development with other countries and international organizations, earnestly implementing international environmental conventions, and seeking scope for China's role in global environmental affairs.

Since the beginning of the 1990s the international community and various countries have made an important step forward in exploring solutions to problems of the environment and development. The United Nations Conference on Environment and Development, held in June 1992, made sustainable development the strategy for common development in the future, and this won wide acclaim from the governments of all countries represented at the conference.

In August 1992, shortly after that conference, the Chinese government put forward 10 major measures China was to adopt to enhance its environment and development, clearly pointing out that the road of sustainable development was a logical choice for China now and in the future.

In March 1994 the Chinese government approved and promulgated China's Agenda 21 — White Paper on China's Population, Environment, and Development in the 21st Century. This document, proceeding from the country's specific national conditions in these three respects, put forward China's overall strategy, measures and program of action for sustainable development. The various departments and localities also worked out their respective plans of action to implement the strategy for sustainable development.

At its Fourth Session in March 1996 China's Eighth National People's Congress examined and adopted the Ninth Five-Year Plan of the People's Republic of China for National Economic and Social Development and the Outline of the Long-Term Target for the Year 2010. Both the Plan and Outline take sustainable development as an important strategy for modernization, thus making it possible for the implementation of the strategy of sustainable development in the course of China's economic construction and social development.

## **II. Improving the Legal and Administrative Systems Step by Step**

China pays great attention to environmental legislative work and has now established an environmental statutory framework that takes the Constitution of the People's Republic of China as the foundation and the Environmental Protection Law of the People's Republic of China as the main body.

The Constitution of the People's Republic of China stipulates, "The state protects and improves the living environment and the ecological environment, and prevents and remedies pollution and other public hazards," and "The state ensures the rational use of natural resources and protects rare animals and plants. The appropriation or damage of natural resources by any organization or individual by whatever means is prohibited."

The Environmental Protection Law of the People's Republic of China is the cardinal law for environmental protection in China. The law has established the basic principle for coordinated development between economic construction, social progress and environmental protection, and defined the rights and duties of governments at all levels, all units and individuals as regards environmental protection.

China has enacted and promulgated many special laws on environmental protection as well as

laws on natural resources related to environmental protection. They include the Law on the Prevention and Control of Water Pollution, Law on the Prevention and Control of Air Pollution, Law on the Prevention and Control of Environmental Pollution by Solid Wastes, Marine Environment Protection Law, Forestry Law, Grassland Law, Fisheries Law, Mineral Resources Law, Land Administration Law, Water Resources Law, Law on the Protection of Wild Animals, Law on Water and Soil Conservation, and Agriculture Law.

The Chinese government has also enacted more than 30 administrative decrees regarding environmental protection, including the Regulations for the Prevention and Control of Noise Pollution, Regulations on Nature Reserves, Regulations on the Prevention of and Protection Against Radiation from Radio Isotopes and Radioactive Device, Regulations on the Safe Administration of Chemicals and Other Dangerous Materials, Provisional Regulations on the Prevention and Control of Water Pollution in the Huaihe River Drainage Area, Regulations Governing Environmental Protection Administration in Offshore Oil Exploration and Development, Regulations on the Control of Marine Wastes Dumping, Regulations for the Implementation of the Protection of Terrestrial Wildlife, Provisional Regulations on the Administration of National Parks, Regulations on the Protection of Basic Farmland, and Regulations on Urban Afforestation. In addition, departments concerned have also issued a number of administrative rules and decrees on environmental protection.

To implement the state's environmental protection laws and regulations, people's congresses and people's governments at local levels, proceeding from specific conditions in their own areas, have enacted and promulgated more than 600 local laws on environmental protection.

Environmental standards are an important component of China's environmental statutory framework. They include environmental quality standards, pollutant discharge or emission standards, basic environmental criteria, criteria for samples, and criteria for methodology. The environmental quality standards and pollutant discharge or emission standards are divided into state standards and local standards. By the end of 1995, China had promulgated state environmental standards on 364 items. As stipulated in Chinese law, the environmental quality standards and pollutant discharge standards are compulsory standards, and those who violate these compulsory environmental standards must bear the corresponding legal responsibility.

In the process of establishing and improving the environmental statutory framework, China attaches equal importance to environmental law enforcement and environmental legislation. For four years in a row, China has conducted nationwide checks on the enforcement of environmental legislation to seriously deal with acts of polluting and damaging the environment and severely punish environmental law violations. China pays great attention to supervision exercised by the people and media over law-breaking activities regarding the environment — it has opened channels for the masses of people to report on environmental problems and adopted measures for the media to expose environmental law-breaking activities.

But it should be pointed out that China's environmental legislative work needs to be further improved. For instance, some areas still remain uncovered, some contents are yet to be amended or revised, and there are still the phenomena of not fully observing or enforcing laws. Therefore, to make continuous efforts to strengthen environmental legislative work remains an important strategic task.

China attaches equal importance to the establishment of an environmental administrative system. It has established a system in which the National People's Congress enacts the laws, governments at different levels take responsibility for their enforcement, the administrative departments in charge of environmental protection exercise overall supervision and administration, and the various departments concerned exercise supervision and administration according to the stipulations of the law.

The National People's Congress has established an Environment and Resources Protection Committee, whose work is to organize the formulation and examination of drafted laws related to environmental and resources protection and prepare the necessary reports, exercise supervision over the enforcement of laws governing environmental and resources protection, put forward motions related to the issue of environmental and resources protection, and conduct exchanges with parliaments in other countries in the field of environmental and resources protection. The people's congresses of some provinces and cities have also established corresponding environmental and resources protection organizations.

The Environmental Protection Committee under the State Council is made up of leaders of various related ministries under the State Council. It is the State Council's consultancy and coordination agency for environmental protection work. Its

major tasks are studying and examining the principles, policies and measures related to coordinated development of the country's economy and environmental protection, giving guidance to and coordinating efforts in tackling major environmental problems, exercising supervision over and conducting checks on the implementation of the environmental protection laws and regulations by various localities and departments, and promoting the development of environmental protection undertakings throughout the country. The people's governments at the provincial, city and county levels have also established corresponding environmental protection committees.

The National Environmental Protection Agency is the competent environmental protection administration agency under the State Council, whose task it is to exercise overall supervision and administration over the country's environmental protection work. The people's governments at the provincial, city and county levels have also successively established environmental protection administration departments to carry out overall supervision and administration of the environmental protection work in their localities. At present, there are nationwide more than 2,500 environmental protection administration departments above the county level with a total staff of 88,000 engaged in environmental administration, monitoring, inspection and control, statistics collection, scientific research, publicity and education.

Environmental protection organizations have also been established in comprehensive administration departments, resources administration departments and industrial departments under governments at various levels to take charge of related environmental and resources protection work. Most of China's large and medium-sized enterprises have also set up environmental protection organizations responsible for their own anti-pollution work and the promotion of cleaner production. At present, the total number of various types of environmental protection workers employed by the various departments and enterprises exceeds 200,000.

### **III. The Prevention and Control of Industrial Pollution and the Comprehensive Improvement of the Urban Environment**

The Chinese government regards prevention and control of industrial pollution as the focal point

of environmental protection. Thanks to unremitting efforts over the past 20-odd years, China has made great progress in this regard.

— Changes in the strategy for the prevention and control of industrial pollution have been effected. In the 1970s efforts to prevent and control industrial pollution in China mainly concentrated on the control of point sources. In the 1980s China carried out prevention and control of industrial pollution in a comprehensive way through the readjustment of irrational industrial distribution, the overall industrial structure and the product mix in combination with technical transformation, strengthened environmental management and other policies and measures. In the course of founding the socialist market economic system in the 1990s China has changed its traditional development strategy, promoted clean production and embarked on the sustainable development road. In the guiding thought for the prevention and control of industrial pollution, “three changes” have been decided upon, i.e., regarding basic strategy, China will gradually change its strategy of end-of-pipe pollution control into pollution control during the whole process of industrial production; with respect to the control of pollutant discharge, concentration control will be replaced by a combination of the control of concentration and that of total quantity; and with regard to pollution control methods, focus on the control of scattered point sources will be replaced by a combination of centralized and decentralized controls.

— Policy and legislation for preventing and controlling industrial pollution have taken initial shape as a coherent system. In order to effectively prevent and control industrial pollution, the Chinese government has drawn up three major policies for environmental protection, i.e., “putting prevention first and combining prevention with control,” “making the causer of pollution responsible for treating it” and “intensifying environmental management.” In addition, it has drawn up the policy on the comprehensive utilization of resources, the policy on preventing and controlling industrial pollution in combination with technical transformation, the policy on overall improvement of the urban environment, the policy on environmental protection technology, and the policy on environmental protection industries. The laws and regulations on environmental protection that have been promulgated include explicit provisions on the prevention and control of industrial pollution. Local governments at all levels have worked out local policies on the prevention and control of industrial pollution in accordance with their actual condi-

tions.

— Enterprise environment supervision and management have been reinforced. The Chinese government has promoted the enforcement of the environmental impact assessment system and the “three-at-the-same-time” system (i.e., facilities for preventing and controlling environmental pollution and destruction shall be planned, constructed and put into use at the same time as the main production projects). These steps have played remarkable roles in controlling new pollution sources. The nation’s environmental impact assessment rate of construction projects above the county level and the implementation rate of the “three-at-the-same-time” system have reached, respectively, 60.8 percent and 87.3 percent. By the end of 1995, 480 cities and 77,000 enterprises had made pollution discharge declarations and registrations; 240 cities had issued a total of 16,000 pollutant discharge licences to 14,000 enterprises. Since 1979 China has collected 24.7 billion yuan in pollutant discharge fees.

— Measures for preventing and controlling industrial pollution have gradually been perfected. First, China has completed a great number of pollution-control projects through the readjustment of the industrial structure and product mix, and promoted clean production through technical transformation. Chemical, metallurgical, light, machine-building, power and construction materials industries have actively adopted clean production, speeded up technical transformation and firmly eliminated a large amount of equipment and products characterized by heavy pollution and high consumption of energy and materials. Consequently, industrial production has increased for several years running, the discharge of pollutants has declined steadily and the economic returns of enterprises have gone up year by year. The Jilin Chemical Industrial Company is an old enterprise, but for many years it has relied on progress in science and technology to carry out technical transformation of its production equipment which used to cause a serious waste of resources and produced a large amount of pollution. As a result, it has fundamentally eliminated pollution from various chemicals. Second, in combination with the comprehensive improvement of the urban environment and regional reconstruction, a number of enterprises featured by heavy pollution have been closed down, moved away or otherwise put under control, thus alleviating the trend of pollution in some regions. The Beijing municipal government closed down the heavily polluting south section of the Special Steel Factory of the

Shougang Iron and Steel Co., eliminating a large pollution source in the city proper. Shanghai has strengthened the prevention and control of pollution in the upper reaches of the Suzhou and Huangpu rivers and in major urban districts, so that pollution in some of the districts has been brought under control. Third, the dynamics of setting deadlines for eliminating pollution have been reinforced. Since 1978 the Chinese government has announced two groups of scheduled pollution-control projects, totaling 367, and local governments have designated 220,000 pollution-control projects, which have basically been completed. Fourth, the prevention and control of pollution is developing toward regional and river valley comprehensive improvement. Since the late 1980s the Chinese government has adopted measures to comprehensively alleviate air pollution in Benxi and Baotou cities, and water pollution in the Baiyangdian Lake and Huaihe River drainage basins. In 1995 the Chinese government promulgated the Provisional Regulations on the Prevention and Control of Water Pollution in the Huaihe River Drainage Area, and the work is being actively carried out in accordance with the plan. Fifth, efforts have been stepped up to save energy and reduce consumption. The capability to treat waste gas, waste water and industrial residue (the "three wastes") has been enhanced and the comprehensive utilization rate of these materials has been increased. During the Eighth Five-Year Plan period (1991-95) energy consumption for every ten thousand yuan worth of the gross domestic product (GDP) decreased from 5.3 tons of standard coal in 1990 to 3.94 tons in 1995, saving a grand total of 358 million tons of standard coal, or an annual average economization rate of 5.8 percent. In 1995 the waste water treatment rate of the industrial enterprises above the county level all over the country reached 76.8 percent; the smoke and dust removal rate of waste gas from burning fuel, 88.2 percent; waste gas purification rate from production processes, 68.9 percent; and the comprehensive utilization rate of industrial solid waste, 43 percent. Output value attained through the comprehensive utilization of the industrial "three wastes" came to 19 billion yuan. Starting in 1983, Li Shuangliang, a retired worker of the Taiyuan Iron and Steel Co., and 20 other retired workers spent 10 years removing a huge slag heap, thus eliminating a serious, long-standing pollution source of the Taiyuan Iron and Steel Co. The slag was utilized in a comprehensive way, with 900,000 tons of waste iron and steel worth 160 million yuan recovered.

China is a country with coal as its main energy

source. Seventy percent of the smoke and dust in the air and 90 percent of the sulfur dioxide emission come from burning coal. As a result, the cities with concentrated industries and populations suffer from serious air pollution. Acid rain has occurred, and the situation has gone from bad to worse in some regions and cities. The Chinese government has adopted some measures, such as developing clean coal technology and clean-combustion technology, and collecting sulfur dioxide emission fees, to control acid rain. A long-term study by Chinese experts on the issue of acid rain proves that the precursors of acid rain generated from the emission source in Chinese mainland are mainly spread within Chinese territory, mainly in the areas south of the Yangtze River, in regions east of the Qinghai-Tibet Plateau, and in the Sichuan Basin.

Like other developing countries, China's per capita energy consumption level and the emitted sulfur dioxide are much lower than the world average level at present, and it will remain so by the end of this century. According to the Framework Convention on Climatic Changes, China is under no specific obligation to limit the emission of carbon dioxide. However, mindful of its responsibility for protection of the global climate, China follows the principle of attaching equal importance to economization on energy and expansion of the energy industry, striving to raise its energy utilization efficiency and to readjust its energy structure. While appropriately developing nuclear power, China spares no effort to develop hydroelectric power and to strengthen research into and exploitation of geothermal power, solar energy, wind energy, oceanic energy and other new energy sources, so as to reduce the green-house gas emission.

Since the initiation of the policies of reform and opening to the outside world, China's GNP has quadrupled, but the growth of the emission of pollutants is clearly slower than the economic growth. Some environmental quality indices of some regions and cities have basically remained stable, and some localities have made improvements to a certain extent. In spite of this, China's industrialization is still in the primary stage of development, with a low level of modernized management. Its industrial distribution and structure need to be further readjusted. With comparatively backward equipment and production technology, the prevention and control of industrial pollution remain an arduous task of environmental protection in China.

The Chinese government has always considered the cities as key points in environmental protection work. In the past 10-odd years China has speeded up urbanization. In 1980 the urban population in



China totaled 191.4 million, a figure which rose to 351.71 million in 1995. In 1980 China had 223 administratively designated cities, which went up to 640 in 1995. The urbanization level increased from 19.39 percent in 1980 to 28.85 percent in 1995. Just like other countries, the issue of environmental pollution has also appeared in the course of China's urbanization. Therefore the Chinese government has adopted effective measures to control environmental pollution and done its best to improve the quality of the urban environment.

— Drawing up overall city plans and readjusting the layout of urban functions. By the end of 1995 each of the 640 cities in China had worked out its own overall city plan. So had each of the 31,559 administratively designated towns. In accordance with the Law on City Planning, while working out an overall city plan, the city must include in the plan details of environmental protection, such as protecting and improving the city's ecological environment, and preventing and controlling pollution and other public hazards. In light of the requirements of the overall planning, many cities, while transforming the old areas and developing new ones, have, in accordance with the city's function zoning, readjusted the industrial layout, strengthened the prevention and control of industrial pollution, changed the situation in which factories and residents share the same areas, controlled urban environmental pollution caused by production and in people's daily lives, and constructed a large number of residential quarters with reasonable layout and complete social services. In addition, China has designated 52 key environmental protection cities, and put 99 leading national-level historical and cultural cities under special protection.

— Strengthening the construction of infrastructure and improving the capability to prevent and control pollution. At present, 68.4 percent of urban residents in China use gas for fuel and heating; the centralized disposal rate of urban sewage is 20 percent; the innocuity rate of urban garbage and fecal disposal is 45.4 percent; and the afforestation rate is 23.8 percent. In 1994 Beijing invested 15.13 billion yuan in the construction of urban infrastructure, of which over 5 billion yuan was used to construct environmental improvement facilities. It built the Gaobeidian Sewage Treatment Plant, with a daily handling capacity of 500,000 tons, and the large-scale Datun Garbage Transfer Station and Ahsuwei sanitary ground, thus greatly improving Beijing's environment overall.

— Comprehensive improvement of the urban environment and improving the quality of the

urban environment. Since 1989 the Chinese government has promoted the urban environment comprehensive improvement examination system throughout the country. The state and the governments at the provincial level have carried out examinations in 37 key cities and other 330-plus cities. The implementation of this system has enhanced the sense of responsibility of leaders at all levels for urban environmental protection, and such examinations have been included in the governments' work agendas. Hence a management system and operation mechanism for the comprehensive improvement of the urban environment under the unified leadership of mayors, carried out by different departments according to their respective divisions of responsibility and actively participated in by the broad masses of the people have taken initial shape. All cities in China have increased their investment in environmental improvement and speeded up relevant construction. Obvious results have been achieved. By 1995 China had constructed 11,333 square km of smoke and dust control zones, and 1,800 square km of up-to-standard noise-control zones, and increased public lawns by 490 million square meters. A large number of urban waterways, such as the Zhongdong River in Hangzhou, the Funan River in Chengdu, the Haihe River in Tianjin, the Suzhou River in Shanghai, the Qinhuai River in Nanjing and the Haohe River in Nantong, have been cleaned up on a large scale. Hence, the urban water environment has been improved.

Thanks to comprehensive urban environmental improvement and ecological construction, Benxi City in Liaoning Province has cleared up 21 "smoke dragons," 17 polluted springs and two mounds of industrial residue which were notorious sources of pollution. It has also constructed a round-the-city forest park with an area of 220 square km. Consequently, Benxi, which used to be known as one of "the cities on earth which could not be seen from a satellite" because of air pollution, has made a remarkable improvement in its environment.

#### **IV. Territorial Control and Rural Environmental Protection**

Territorial control forms part of China's work in implementing the sustainable development strategy. Since the start of the reform and opening-up era, the Chinese government has carried out territorial control on a large scale.

— New progress has been made in territorial control planning. In this work the Chinese government has formulated a sequence of national, trans-provincial and key-regional territorial control plans, such as the National Program for Overall Land Use Planning, the National Program for Afforestation, the National Plan for Marine Development, the National Program for Water and Soil Conservation, the Comprehensive Plan for China's Seven Major River Valleys, the Plan for Economic Development in the Three Gorges Area, the Economic Plan for the Yangtze River Delta and Areas Along the River, Key Points of the Economic Plan for Northwestern Areas, and the Resources Development and Environment Protection Plan for the Juncture of Shanxi, Shaanxi and Inner Mongolia. Some provinces and cities have also drawn up or revised local territorial control plans and the overall plan for land use. By the end of 1995 the overall plan for land use had been completed by 60 percent at the provincial level, 69 percent at the city (prefectural) level and 63 percent at the county level.

— Many achievements have been made in research on territorial control. To help formulate the Ninth Five-Year Plan for National Economic and Social Development and the Outline of the Long-Term Target for the Year 2010, the Chinese government, proceeding from realizing coordination and sustainable development of the economy, society, population, resources and environment, has organized research on vital issues such as the development of territorial resources and environmental control, the overall plan for the national territory, and how well mineral resources can satisfy the demands of the national economy. It has also completed the Major Issues on the Development of National Territorial Resources and Environmental Control During 1996-2010 and other research reports on special subjects. The government has laid down the overall framework of optimizing the development and control of territorial resources, the regional development strategy and distribution of territorial resources exploitation, as well as the targets and measures of territorial control and environmental protection.

— Notable successes have been attained in the harnessing of main rivers and lakes. Since the foundation of New China in 1949 the Chinese government has taken comprehensive exploitation and control of major rivers and lakes, with emphasis on the prevention and control of flood and waterlogging, as an important task of water conservancy construction. During the Eighth Five-Year Plan period, on the middle and lower reaches of the

Yangtze River, the lower reaches of the Yellow River, and on the Huaihe, Haihe, Songhua and Liaohe rivers and Taihu Lake, the main dikes were heightened and reinforced, waterways were dredged, and flood diversion projects were built. The construction of a group of key projects for water control and other uses were completed or started. To compensate for lack of water resources in northern areas, the Chinese government vigorously promoted the planning and construction of water-diversion projects between different drainage basins. In November 1995 it sponsored an overall feasibility study of the middle, eastern and western lines projects for diverting water from south to north.

The Three Gorges Project is a gigantic, trans-century project for harnessing and developing the Yangtze River. When it is completed, floods on the upper reaches will be effectively controlled and areas on the middle and lower reaches will be able to improve their anti-flood capability, thus lessening the harmful effects on the ecological environment. Hydroelectricity, which will be the energy discharged by the project, causes much less pollution than coal-burning power plants. The government has organized experts to work out the Report on the Impact of the Three Gorges Project on the Ecology and Environment, and Countermeasures, and has approved the Environmental Impact Statement of the Three Gorges Project. The government will adopt a sequence of measures to minimize the unfavorable effects on the ecology and the environment that could be caused by the Three Gorges Project.

— Land preservation, exploitation and control have been promoted on a full scale. In order to put cultivated land under proper protection, basic farmland preservation areas have been delimited all over the country, in accordance with the Regulations on the Protection of Basic Farmland. By the end of 1995, 2,100 units at the county level had finished the work, with well over 70 percent of farmland put under effectual protection. Planned management of the land to be used for construction has been strengthened, putting the total area and makeup of such land under proper control. Random occupation of farmland has been curbed to some extent. In 1995, farmland used for construction was 20.8 percent less than the previous year. In recent years, the government has formulated the Key Points of National Planning for Desertification Control During 1991-2000 to speed up the desertification prevention and control project. It is planned that 6.667 million hectares of desertified land will be treated over 10 years. The

development of 20 key counties, nine experimental areas and 22 demonstration bases of the national desertification prevention and control project has been brought into line with the development plan of the national economy. During the Eighth Five-Year Plan period 3.759 million hectares of desertified land were tackled in a comprehensive way. The Chinese government also devotes much attention to water and soil conservation. It has effectively prevented soil erosion and improved the ecological environment and agricultural conditions. At present, 25 key soil erosion control areas have been established at the national level. Water and soil conservation projects are carried out in seven big river valleys. In more than 10,000 small river valleys with serious soil erosion, problems concerning mountains, rivers, farmland and forests are tackled in a comprehensive way. Soil erosion has been checked in a total area of 67 million hectares, and a great number of water and soil conservation projects have been completed, making eroded soil decrease by 1.1 billion tons every year and water conservation capacity increase by 18 billion cubic meters. In the comprehensive soil erosion control area in the Loess Plateau, a total of 15 million hectares of land have been treated — 30 percent of the soil erosion area — with over 300 million tons less silt flowing into the Yellow River every year. Since the publication of the Regulations on Land Reclamation, most of the provinces and cities have worked out procedures for implementation of these regulations and more than a dozen provinces and autonomous regions have put into effect procedures for raising funds for land reclamation and for the use and administration of these funds. As a result, remarkable progress has been made in the country's reclamation of discarded land. From 1987 to 1995 about 3.5 million hectares of land were reclaimed, among which 600,000 hectares had been wasteland. In 1989 the experimental work of land reclamation was carried out in major mineral-producing provinces. In 1995 construction of three national-level reclamation demonstration zones was started in sunken areas of coalfields, while the national reclamation technical standards were stipulated. In seven years, Tongshan County in Jiangsu Province invested 56 million yuan to reclaim 6,600 hectares of land, basically balancing land reclamation with land use.

— The ability to combat natural disasters has been improved. The Chinese people have accumulated abundant experience in their protracted struggles against natural disasters, in which they laid down principles like “putting prevention first and combining prevention and control”, and “combin-

ing prevention and rescue”. A working system has been primarily established to avert all kinds of natural disasters, and a contingent of experienced scientists and researchers of various disciplines has been organized, and monitoring stations and networks for main natural disasters have taken initial shape.

China has traditionally been an agricultural country. In developing agricultural production, the government attaches great importance to rural environmental protection.

— Achievements have been made in eco-agriculture. The government has taken the development of eco-agriculture as an important means to realize the coordinated development of the environment and the economy. At present, the 50 eco-agricultural experimental counties designated by the state are playing positive and exemplary roles in the country, spurring development of eco-agriculture in 10 prefectures and over 100 counties. According to statistics, the total output of grain of the experimental counties has increased by 15 percent, output per *mu* by upwards of 10 percent, and the income per capita is 12 percent higher than the average level of each locality. The practice of eco-agriculture has brought about striking improvements in the agricultural ecological environment — barren hills greened, forest acreage greatly raised, soil erosion controlled to some extent, organic matter content of the soil increased, and the ability of the agricultural ecological system to ward off natural disasters improved. In the meantime, in order to promote regional sustainable development, construction of some 100 ecological demonstration areas, mainly at the county level, has been started in an all-round way.

— Further development of rural energy construction. Energy construction in rural areas is an important measure for protecting and improving the rural ecological environment. In 1991 comprehensive energy construction in rural areas was started in 100 counties. As a result, a capacity equivalent to 10.8 million tons more of standard coal were added every year and 11.37 million tons were saved. In 1995 fuel-saving stoves, methane, solar, wind and geothermal energy sources and small hydropower stations began to develop and were popularized in rural areas throughout the country. In this way, annually 80 million tons of standard coal can be saved and additionally produced. Methane-generating pits for agricultural use were dug to benefit 5.69 million households and fuel-saving stoves were in use in 170 million households.

— Pollution prevention and control in township

enterprises have been strengthened. Township enterprises are a strong mainstay of the Chinese rural economy and an important sector of the national economy. Because of their rapid development, the environmental problems they caused attracted the serious attention of the Chinese government and people. In the past decade, environmental management and pollution prevention and control in township enterprises have made some progress. In areas along the eastern coast, the technical and equipment levels of township enterprises have been gradually raised. Centralized pollution control has been carried out, along with construction of small towns, township enterprises zones and economic development zones. All these steps have seen certain outcomes. Zhangjiagang City in Jiangsu Province is spurring its economy to develop rapidly while paying due attention to prevention of environmental pollution by township enterprises. It has thus realized a coordinated development of both the environment and the economy. In the central and western areas township enterprises have been actively guided, aided and supervised to prevent environmental pollution spreading. It should be pointed out that environmental protection in areas of township enterprises is still an arduous task, and that the government will keep guiding them to develop in a healthy way, preventing and alleviating environmental pollution through reinforced environmental management.

— Development of green and organic food is welcomed. In order to meet the people's increasing demands for high-quality food, and to protect agricultural natural resources and the ecological environment, relevant departments began in 1990 to develop "green food", featuring pollution-free, safe, high-quality and nutritious contents. By the end of 1995 a total of 568 sorts of green food had been developed, many of them becoming well-known products. Since the start of the development of green food, 1.13 million hectares of land have been well protected. In 1995 a government department published the Procedures on the Administration of Organic (Natural) Food Labelling. Organic (natural) food unpolluted by chemical fertilizers and farm chemicals has now appeared in China.

## V. Protection of the Ecological Environment and Biodiversity

The Chinese government regards ecological environmental protection as the focal point of its

environmental protection work. Through protracted efforts the country has made outstanding achievements in the protection and nurturing of the ecological environment.

— Achievements have been made in afforestation. Since the 1950s the Chinese government has organized large-scale tree planting activities and stepped up efforts for the fostering, protection and management of forest resources and consequently has made great progress in rational utilization of forest resources. Since the reform and opening up the afforestation efforts have been quickened, with the quantity increased annually and the quality improved continuously, thus basically eliminating the deficit in forest reserves which had existed for a long period, while the growth of forests has begun to exceed consumption. As a result, the era of increase both in forest acreage and reserve has dawned on the country. Currently, China's forest area totals 134 million hectares, which brings the country's forest cover up to 13.92 percent. Artificial afforestation covers 33.79 million hectares. Volunteers have contributed a total of 4.4 billion person-times to planting 23 billion trees. Once-barren mountains suitable for tree planting in 12 provinces and autonomous regions are now clothed with greenery.

The government has paid special attention to the construction of forest ecological projects. Since 1978 China has established 10 forest ecological projects, with a scheduled afforestation area of 120 million hectares — aimed mainly at protecting and improving the natural eco-environment and realizing the sustainable use of natural resources. These projects are: the "three norths" shelterbelts (the western area of Northeast, and the northern parts of North and Northwest China), the shelterbelts along the upper and middle reaches of the Yangtze River, the coastal shelterbelts, the plain farmland shelterbelts, the Taihang Mountains afforestation project, the anti-desertification project, the shelterbelts for comprehensive control in the Huaihe River and Taihu Lake basins, the shelterbelts for comprehensive control in the Pearl River basin, the shelterbelts for comprehensive control in the Liaohe River basin, and the shelterbelts along the middle reaches of the Yellow River. Currently, the "three norths" shelterbelts project has finished its first and second phases, resulting in a newly afforested area of 18.51 million hectares and increasing the forest cover from 5.05 to 8.2 percent. This project has turned more than 40,000 square km of barren land into green land and more than 1.3 million hectares of desert land into farmland, pastures and orchards. Twelve percent of the total desertified

land has been worked on, and 10 percent of it has been brought under control, more than 11 million hectares of farmland has been protected by forest networks, while 8.93 million hectares of grassland have been restored, resulting in a 20-odd percent increase in grass output. The agricultural eco-environment in one-third of the counties covered by the "three norths" project has entered a benign circle. The shelterbelts project along the upper and middle reaches of the Yangtze River has yielded more than 5.46 million hectares of newly planted forest in seven years. A grand total of 1.6 million hectares of forest has appeared since coastal shelterbelts project was launched in an all-round way in 1991, which basically covers the 18,000 km-long coastline. A total of 769 counties or cities covered by the plain farmland shelterbelts have reached their tree-planting goals, accounting for 84 percent of the total 918 counties in plain areas. The Taihang Mountains afforestation project has already produced a total of 1.02 million hectares of afforested area since it was launched in 1994. The above large-scale eco-system construction projects have gradually improved the eco-environment in a considerable number of areas.

— Grassland construction has made progress. The protection and management of grassland resources is reinforced by governments at all levels in line with the Grassland Law, and activities such as unauthorized reclamation, excessive digging and overgrazing are forbidden. With the combined efforts of the state, the collective and individuals, grassland construction and control over grassland desertification and deterioration have been strengthened. According to statistics, the total area of artificially sown grass and improved meadows has reached 11.757 million hectares, and that of fenced meadows, 8.333 million hectares. The 49 key comprehensive demonstration projects for grassland stockbreeding constructed by the state have made great achievements. By the end of 1994 a total of 5.638 million hectares of artificially sown grass had been completed, which has blazed a new trail for developing animal husbandry and ecological environmental protection in the areas with arid and desertified land and those with serious soil erosion.

— Marine environmental protection has been strengthened. Marine environmental protection is a major component of China's environmental protection efforts, as the country has a vast maritime territory. A series of laws and regulations concerning marine environmental protection has been published, and a nationwide marine environment monitoring network has been set up. Coastal waters

have been divided up into zones for administration, and effective environmental management is practiced for offshore construction projects, offshore petroleum exploitation and wastes disposal so that marine pollution and resources destruction are taken well in hand, and efforts have been made to prevent "red tide" and protect offshore fishery resources. By the end of 1995, 14 national-level marine nature reserves had been set up. The water quality in most of China's maritime zones and the surrounding ecological environment have been basically kept in good condition.

The Chinese government has for a long time made unremitting efforts for biodiversity conservation, formulating the China Program for Nature Conservation and China's Action Plan for the Conservation of Biodiversity, containing the policy, strategy and key fields and priority projects for biodiversity conservation.

China has adopted the on-site conservation and off-site preservation methods to protect biodiversity. Currently, there are 612 national-level rare and endangered species of flora and fauna listed as key protection species, including 258 species of wild animals and 354 species of plants. Artificial reproduction has been successfully implemented for more than 60 species of rare and endangered wild animals, and through propagation, such species as David's deer, wild horse and saiga tatarica have been re-introduced.

Establishing nature reserves is the most effective method for the in situ conservation of wild plants and animals. By the end of 1995, 799 nature reserves of rather diversified types, covering a total area of 71.85 million hectares (or 7.19 percent of China's territory) had been established in China. There are 99 national-level reserves, of which 10 — Jilin's Changbai Mountains, Sichuan's Wolong, Guizhou's Fanjing Mountains, Hubei's Shennongjia, Fujian's Wuyi Mountains, Xinjiang's Mt. Bogda, Guangdong's Dinghu Mountains, Inner Mongolia's Xilingol, Jiangsu's Yancheng and Yunnan's Xishuangbanna — have been listed in the International Network of Man and Biosphere Reserves. Another six nature reserves — Zhalong in Heilongjiang, Xianghai in Jilin, Boyang Lake in Jiangxi, East Dongting Lake in Hunan, Bird Island in Qinghai and Dongzhai Harbor in Hainan — have been included in the list of the world's important wetlands. At present, a total of 512 historic and scenic sites have been designated, of which 119 are at the national level, 256 at the provincial level and 137 at the city or county level, covering a total area of 9.6 million hectares. Forest parks total 710, of which 248 are at the national level. Scenic spots at

Huangshan Mountain, Wulingyuan, Jiuzhaigou and Huanglong are listed as parts of the world natural and cultural heritage by the United Nations Educational, Scientific and Cultural Organization. The establishment of nature reserves has put a number of representative and typical natural ecosystems with scientific research value as well as rare and endangered species under effective protection.

Establishing zoological gardens, botanical gardens and various artificial breeding centers is an effective method for off-site preservation of various species of wild animals and plants. By the end of 1995 China had set up 175 zoological gardens and zoological exhibition sites in public parks, 227 artificial breeding centers for wild animals, more than 60 large botanical gardens and 255 wild plant gene and cell banks to ensure the continuation of rare and endangered species of plants and animals, including the giant panda, Chinese alligator, Chinese sturgeon, white-flag dolphin, Manchurian tiger, crested ibis, Cathay silver fir, dovetree, *Cycas revoluta* and *camellia chrysantha tuyama*. In addition, China has established some dozen specimen centers, one gene bank and two cell banks for wild animals, which have helped genetic polymorphism research and preservation work. The medicinal use of and trade in rhinoceros horn and tigerbone are strictly prohibited by the government, and the illegal hunting of rare wild animals is severely punished by law.

The government has placed much stress on the preservation of the genetic materials from domestic animals and fowls, as well as germ plasma resources from crops. There are 596 species of livestock and poultry in China, of which over 70 percent are native species. The government has appropriated special funds for preservation of some endangered or sharply diminishing species of livestock and poultry and established a germ plasma gene bank for livestock forage grass. China had initially formed a preservation system for germ plasma resources from crops, including one national germ plasma bank for long-term preservation and a duplicate one, 23 local germ plasma banks for mid-term preservation, and 25 national germ plasma nurseries, of which two are for test-tube culture. The germ plasma resources of most agricultural plants in China are preserved, including 330,000 specimens of germ plasma for various species of crops, of which 300,000 have duplicates.

The government also attaches great importance to the environmental protection of the Tibet Autonomous Region. The environmental quality in Tibet today has been kept in an excellent condition.

The atmospheric environment there has attained the state's first-level quality and the water quality of major rivers and lakes is also higher than the national standard for the surface waters environmental quality. Forests and grasslands are under effective preservation. The forest area in Tibet totals 7.17 million hectares and the stumpage, 2.084 billion cubic meters. The total grassland area amounts to 82.07 million hectares, of which 70.77 million hectares are usable. With an elevation of 4,700 meters, Namco Lake has become a natural habitat for rare water birds like swans, egrets and sand birds.

Viewed overall, however, many problems still exist — the shortage of the forest area, grassland degradation, soil erosion, desertification and difficulties in the protection of rare and endangered species of wild animals and plants. Thus, the further strengthening of the preservation of the ecological environment and biodiversity remains an important task for the Chinese government to tackle.

## VI. Environmental Science and Technology, and Environmental Publicity and Education

Through adopting the strategy of "relying on science and education to rejuvenate the nation", China has made certain achievements in actively accelerating the development of environmental science and technology, as follows:

— The research spectrum of environmental science and technology has been steadily broadened. Research into environmental science and technology in China began in the 1970s. As an important part of scientific and technological work, it is put in a position of importance by the government. For some major environmental research subjects the Chinese government has formulated corresponding research programs and plans for environmental protection while organizing forces to tackle key scientific and technological problems. Besides, China has expanded its research into comprehensive prevention and control of regional environmental pollution, environmental background values and environmental capacity, pollution control technology and global environmental problems. As a result, the country has made substantial scientific and technological achievements in some research areas, such as the comprehensive prevention and control of Beijing's environmental pollution, the capacity of the atmospheric environment, the back-

ground value and environmental capacity of the nation's major soils, acid deposition and its impact and control, the forecasting and monitoring of the influence of the changes in the global climate and corresponding countermeasures, the depollution of coal, and the control of air pollution. China has also developed research in such fields as regional environmental impact assessment, environmental management and environmental economy, environmental monitoring technology and equipment, the protection of natural ecology, and the relationship between the environment and people's health. This provides scientific basis and technological support for environmental management, the prevention and control of pollution, and ecological protection.

— The numbers of research institutes and personnel engaged in environmental protection have been steadily increased. By the end of 1995 some 390 scientific research bodies engaged in environmental protection had been established nationwide, staffed by more than 20,000 research and managerial personnel. A comprehensive scientific research system composed of the Chinese Academy of Sciences, competent departments of different trades, colleges and universities, and the environmental protection departments is basically in place.

— Work regarding the screening, evaluation and popularization of the optimum and practical technology for environmental protection has been organized. The popularization of the optimum and practical technology is an important measure to expedite the transformation of environmental scientific and technological achievements into the capability of actual pollution prevention and control. During the Eighth Five-Year Plan period, 1,316 kinds of practical technology were recommended nationwide, and 438 of them were appraised as the optimum items of practical technology. Among them, 385 kinds have been put into use in 140,000 units, resulting in reduced emission of the "three wastes" and excellent economic returns.

— The development of the environmental protection industry has been fostered. This newly emerging industry involves the development of technology, manufacturing of products, circulation of commodities, utilization of resources, provision of information, and undertaking of contracted projects. China gives priority to the development of the environmental protection industry, with the guidelines of "actively fostering, adjusting the structure, relying on science and technology, improving quality, orienting to the market and providing excellent services." Preferential policies are

given to investment, prices, taxes, etc., to encourage the development of the environmental protection industry. A general survey of the nation's environmental protection industry, the results of which were made public in May 1996, shows that there are 8,651 units engaged in the environmental protection industry, which is staffed by 1.882 million people and boasts 45.011 billion yuan worth of fixed assets, an annual output value of 31.148 billion yuan and 4.091 billion yuan in profits.

— The development of environmental labels has entered the stage of implementation. In March 1993 China began to carry out a plan for environmental labelling. By April 1996 the environmental label certification work had been developed in 11 categories of products, and 35 kinds of products from 21 enterprises had been awarded environmental labels. As the environmentally-labelled products enter millions of households the environmental label will exert a growing influence in society.

The Chinese government regards it a strategic task to actively develop environmental publicity and education and to raise the nation's consciousness about the importance of environmental protection.

— China strives to popularize environmental protection knowledge among the people and raise their consciousness about environmental protection and gradually to cultivate fine environmental ethics and codes of conduct. As early as in the 1970s, popular science textbooks on environmental protection were compiled or translated into Chinese to widely introduce environmental protection knowledge and enlighten the people on such knowledge. Since the 1980s large-scale publicity activities have been organized all over the country every year on World Environment Day, Tree Planting Day, Love the Birds Week, etc. In recent years the Chinese media has been further promoting publicity and reports on environmental protection. Virtually all newspapers, radio and TV stations frequently offer environmental protection programs, and, in particular, the media pays special attention to severely polluted areas and units. Since 1993 the media's "China Trans-Century Environmental Protection Inspection Campaign," centered on news about environmental law enforcement, has aroused a nationwide response and accelerated the solution to a number of major environmental problems. Meanwhile, the various provinces and cities have also developed such activities. In the past three years, 1,500 journalists from 750 news units have participated in these activities, engendering more than 10,000 news arti-

cles. Of these, television news items alone accounted for 1,600.

In 1983 China established the first national-level professional newspaper on environmental protection in the world—the China Environment News, with an annual circulation of nearly 300,000 copies. In 1980 the China Environmental Science Press was established. By 1995 it had published over five million copies of books of 860 titles on the environment. Since 1990 the China Environment Yearbook has been published, and its English version also published since 1994. Besides, there are more than 30 local environmental newspapers and several hundred professional periodicals.

The Chinese government encourages the whole of society to participate in environmental publicity and education activities. In recent years the environmental protection departments, educational departments, cultural departments, news units, organizations for women and youth, scientific associations and academic societies have all developed their own environmental publicity and educational activities, highlighted by the following aspects:

— Higher education has provided a great number of scientific, technological and managerial personnel for environmental protection work. A total of 140 colleges and universities, including Beijing University, Qinghua University, the People's University of China, Beijing Normal University, Nanjing University, Tongji University and Wuhan University, all have departments of or majors in environmental studies, with a total of 206 units having the authority of awarding bachelor's degrees. Approved by the Academic Degrees Committee under the State Council, there are 223 units granting master's degrees in 51 majors concerning the environment, 77 units granting doctorates in 39 majors, and several post-doctorate positions. Furthermore, more than 40 specialized secondary schools and over 100 vocational high schools also offer environmental courses. Over the past 20 years, large numbers of specialists trained by China's professional environmental education have become a significant force in the environmental protection field.

— On-the-job training has enhanced the quality of environmental managerial personnel. In 1981 the Environmental Administrative Personnel Training College was established for the purpose of offering on-the-job training, continuing education and academic-level education to administrative personnel in the environmental protection departments throughout the country. By the end of

1995 over 5,200 trainees had completed courses there. These skill-enhanced trainees are playing an important role in promoting the nation's environmental protection work. Moreover, proceeding from the actual needs, various types of environmental training classes and symposiums have been held by various localities and departments concerned. Statistics show that over the past decade, more than 10,000 training classes have been held attended by over 400,000 persons.

— Basic environmental education has cultivated and enhanced young people's environmental consciousness. In recent years, environmental education has been offered in high schools, primary schools and kindergartens throughout the country to cultivate the children's loving-the-nature quality and sense of responsibility for environmental protection.

China is a populous country with underdeveloped education and the nation's consciousness about the environment remains to be further enhanced. Therefore, it will be a long-term, arduous task to do well in environmental publicity and education in China.

## **VII. Taking Vigorous Action to Promote International Cooperation in Environmental Protection**

China consistently holds that economic development should be coordinated with environmental protection; protection of the environment is a common task for mankind, but the economically developed countries should take more responsibility in this respect. It always maintains that the strengthening of international cooperation should be based on respecting national sovereignty, the protection of the environment and the spurring of development can not be done without peace and stability in the world, and both practical interests of various countries and long-term interests of the world should be considered in handling environmental problems.

While a series of measures for solving its own environmental problems are being taken China has participated, actively and in a practical manner, in international cooperation in the environmental protection field and made sustained efforts to promote global environmental protection as a common task of mankind.

China supports and actively participates in the



environmental activities launched by the UN organizations. China has been a member state of the successive UN Environment Program Governing Council and fruitful cooperation has been carried out between China and the UNEP. In 1979 China joined the UNEP's "Global Environment Monitoring System," "International Registry of Potentially Toxic Chemicals" and "International Environmental Information System." In 1987 a head-office for research and training in international desertification control was established by the UNEP in Lanzhou, capital of northwest China's Gansu Province. China has passed its experiences and techniques on controlling desertification and building ecological agriculture on to many countries through the UNEP. By 1996 a total of 18 units or persons in China had won the "Global 500" title awarded by the UNEP. Good cooperative relationships have been forged between China and the UN Development Program, the World Bank, the Asian Development Bank and other international organizations. At present, an effective mode of cooperation for the use and management of multilateral funds of the Montreal Protocol on Substances That Deplete the Ozone Layer and the Global Environmental Facility as well as loans from the World Bank and the Asian Development Bank has been established. This has played an active role in promoting prevention and control of China's pollution and in improving environmental management ability. China is a member of the UN Committee on Sustainable Development, set up in 1993, and has played a constructive role in this high-level political forum on the global environment and development. China has kept a close cooperative relationship with the UN Economic and Social Commission for Asia and the Pacific and other relevant organizations, and has made contributions to environmental causes and the development of the Asian and Pacific regions through participating in the Northeast Asia environmental cooperation, the Northwest Pacific Action Plan, and the Regional Coordinating Unit for the East Asian Seas Action Plan.

China has actively developed bilateral cooperation in the field of environmental protection. Over the past ten-odd years China has successively signed bilateral environmental protection cooperation agreements and memorandums of understanding with the United States, the Democratic People's Republic of Korea, Canada, India, the Republic of Korea, Japan, Mongolia, Russia, Germany, Australia, Ukraine, Finland, Norway, Denmark, and the Netherlands. Exchanges and cooperation have been carried out in environmen-

tal planning and management, global environment problems, pollution control and prevention, protection of forests and wild animals and plants, marine environment, climate change, air pollution, acid rain and sewage disposal and important achievements have been made in these respects. China has also taken part in the Global Learning and Observation to Benefit the Environment, as proposed by the United States.

In order to promote further international cooperation in the environment and development field, China set up the China Council for International Cooperation on Environment and Development in April 1992, composed of more than 40 leading specialists and well-known public figures from China and other countries, to be responsible for submitting proposals and advisory opinions to the Chinese government. The Council has put forward valuable concrete proposals on energy and the environment, biodiversity protection, ecological agriculture, resources accounting and the pricing system, public participation and the implementation of the environment laws and regulations, which have aroused the attention and response of the Chinese government.

China took an active part in the preparations for and in attending the UN Conference on Environment and Development. It made great efforts for the smooth convening of the Conference. China has taken part in all the preparatory meetings of the Conference and played a constructive role in discussions and negotiations concerning international environment conventions. In June 1991 the Ministerial Conference of Developing Countries on Environment and Development, proposed by China and held in Beijing, was participated in by 41 developing countries, and the Beijing Declaration published by it set forth the principled stand of the developing countries on environment and development, making substantial contributions to the preparation of the UN Conference. In line with the requirements of the first meeting of the Preparatory Committee for the UN Conference on Environment and Development, China worked out the Report on the Environment and Development of the People's Republic of China, which gave an overall exposition on the current situation of China's environment and development, put forward strategic measures for coordinated development of China's environment and economy and set forth China's principled stand on the problems of the global environment, which have received favorable comments from the international community. In June 1992 Song Jian, state councilor and director of the

Environmental Protection Commission of the State Council, led a delegation from the Chinese government to the UN Conference on Environment and Development. China's Premier Li Peng was present at the summit meeting of the Conference and made an important speech proposing the strengthening of international cooperation in the field of environment and development, winning positive comments from the international community. On behalf of the Chinese government, Li Peng took the lead in signing the United Nations Framework Convention on Climate Change and the Convention on Biological Diversity, exerting a positive influence on the meeting.

Since 1979 China has signed a series of international environmental conventions and agreements, including the Convention on International Trade in Endangered Species of Wild Fauna and Flora, International Convention for the Regulation of Whaling, Vienna Convention for the Protection of the Ozone Layer, Basel Convention on Control of Transboundary Movements of Hazardous Wastes and Their Disposal, Montreal Protocol on Substances That Deplete the Ozone Layer (revised version), Framework Convention on Climate Change, Convention on Biological Diversity, Convention on Combating Desertification, Convention on Wetlands of International Importance Especially as Waterfowl Habitat, and 1972 London Convention.

China always conscientiously carries out its responsibilities for international environmental conventions and agreements which it has signed, approved or joined. Under the guidance of China's Agenda 21, in order to conscientiously undertake its promised duties China has worked out some important documents and state programs or action plans, including the 21st Century Agenda on Environmental Protection, Action Plan for the Conservation of Biodiversity, Action Plan for Forestry in the 21st Century Agenda, and the 21st Century Marine Agenda. The Chinese government approved the State Plan for Gradually Eliminating Substances That Deplete the Ozone Layer which put forward a plan and policy framework for eliminating controlled materials as well as measures for controlling or banning the production and extensive use of substances which deplete the ozone layer. In July 1994, with the support of the UN Development Program, the Chinese government successfully held in Beijing the High-Level International Round-Table Conference on Agenda 21, which contributed to the promotion of the nation's sustainable development. To provide legal basis for preventing envi-

ronmental pollution by the importation of wastes, in November 1995 China published the Emergency Announcement on Strictly Controlling Trans-Boundary Movement of Wastes to China, and in March 1996 it published the Provisional Regulations on Environmental Protection and Management of Wastes' Importation.

## Concluding Remarks

After more than 20 years of unremitting efforts, China has achieved successes in environmental protection that have attracted worldwide attention. In spite of this, the Chinese government clearly knows that waste of resources and environmental pollution in the country are quite serious because China is in the development stage of rapidly promoting industrialization and still practices the extensive production and management methods. Along with population increase and economic development, this problem will become more prominent. It is still a long-term and arduous task to solve the environmental problems left over by history and control the environmental problems that appear in the process of development.

In the process of the reform and opening up and the modernization drive, China will continue conscientiously to carry out the basic national policy on environmental protection and implements the sustainable development strategy.

During the Ninth Five-Year Plan period (1996-2000) the Chinese government will put into effect a series of important environmental protection measures, including the China Trans-Century Green Project, and realize the objectives of the struggle for environmental protection as put forward in the Ninth Five-Year Plan of the People's Republic of China for National Economic and Social Development and the Outline of the Long-Term Target for the Year 2010. It will do its utmost to bring the aggravating tendency in environmental pollution and ecological destruction basically under control and improve the environmental quality of cities and regions.

Mankind still faces a great many of difficulties in solving the problems of the environment and development, and there is a long way to go. China will, as it did in the past, cooperate for the same aim with the other countries of the world and strive for protection of the global environment in which mankind lives, and for the common prosperity of humanity. ■

# ul at Shougang



Shougang Iron and Steel Co.

has made impressive changes as a result of the reforms implemented by management.

## Shifting Priorities

Designated by the state as one of the eight pilot enterprises for reform in 1979, Shougang began with a profit-sharing system which was changed in 1982 to a profit-increasing contract sys-

tem. This means that with the profit remitted to the state the previous year as the base figure, an annual 7.2 percent additional profit turned over to the state should be guaranteed, any portion above this excess is retained by the enterprise. In 1994 the state initiated tax reform and introduced a new tax system. Shougang, however, continued its contract system. As a result, Shougang enjoyed special policies

unavailable to others.

China's iron and steel policies have always focused on expanding output, and this is true with Shougang. In addition, since Shougang was one of China's 10 largest state-owned enterprises, it established ambitious goals. To achieve the goal of producing 10 million tons of steel and joining the ranks of the world's top 10 companies, it inappropriately stressed output, arbi-

trarily expanded its business scale and operated social welfare undertakings.

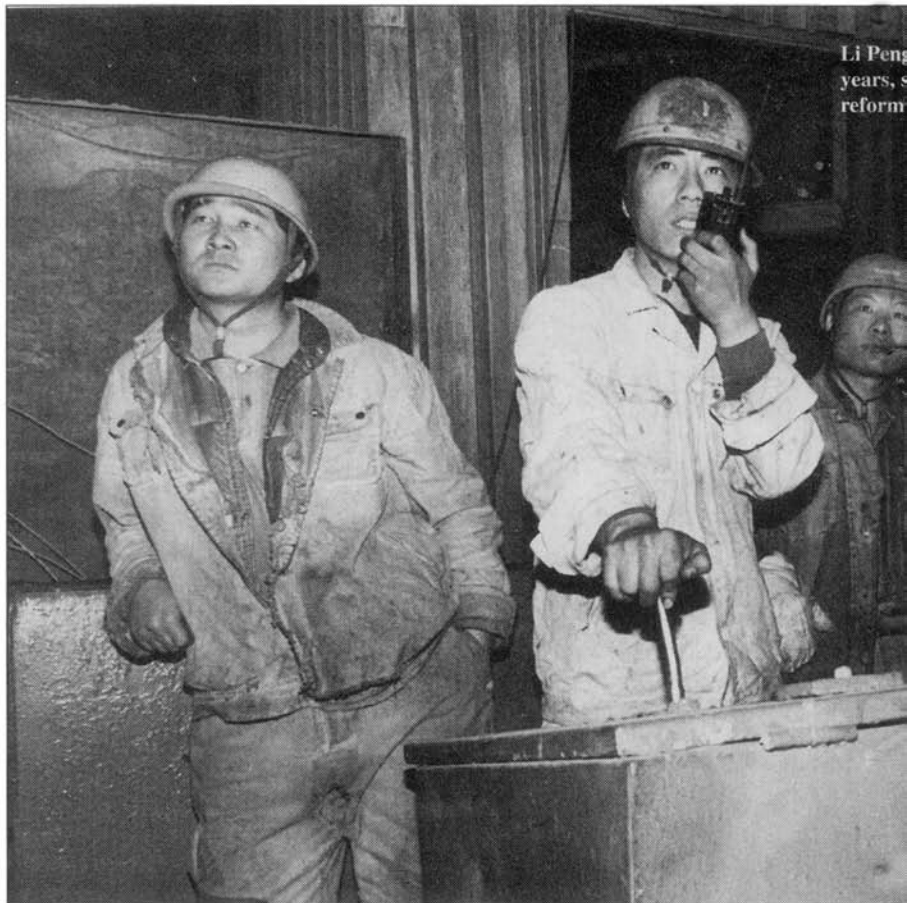
This resulted in numerous financial problems. In 1995, the company ended its contract system, introduced a new tax system and implemented market-oriented reforms.

### Changing Production Principles

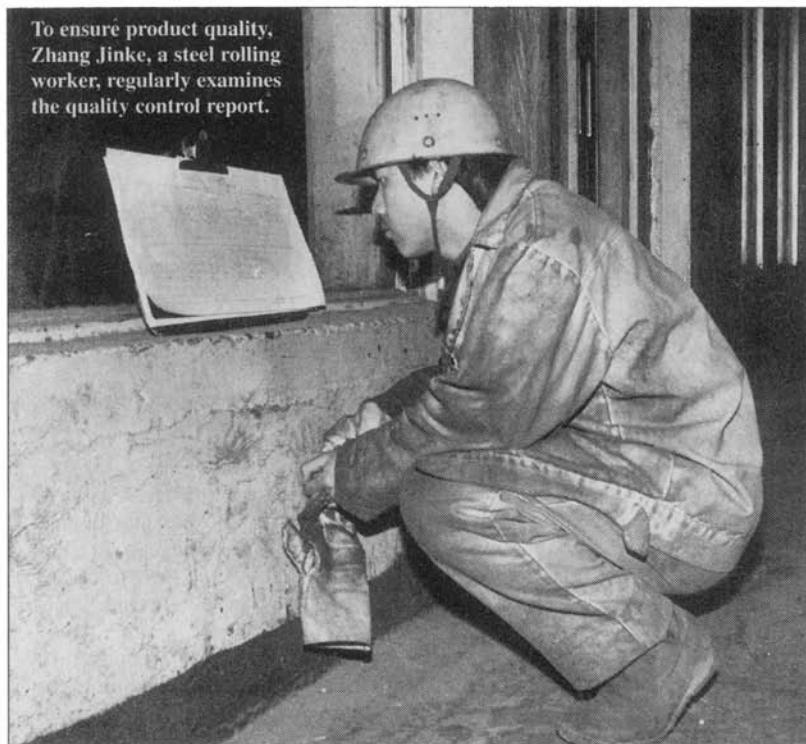
When Shougang had a contract system, it inappropriately pursued output and disregarded market demand, resulting in over-production, shortages of funds, and a production and management impasse. To extricate itself from the predicament, the company's managers changed their operational principles. After reducing stock, they began to promote sales.

They also decided to keep expenditures within the limit of income and reduce the scale of capital-industry construction. Their savings were used to pay taxes, invest in programs to protect the environment and establish welfare programs for their workers.

Since then, major production fluctuations have been eliminated and stability maintained. The company's 1995 output of pig iron increased 221,000 tons over the previous year, a 3.19 percent rise. In the meantime, the output of



Li Peng  
years, s  
reform



To ensure product quality, Zhang Jinke, a steel rolling worker, regularly examines the quality control report.

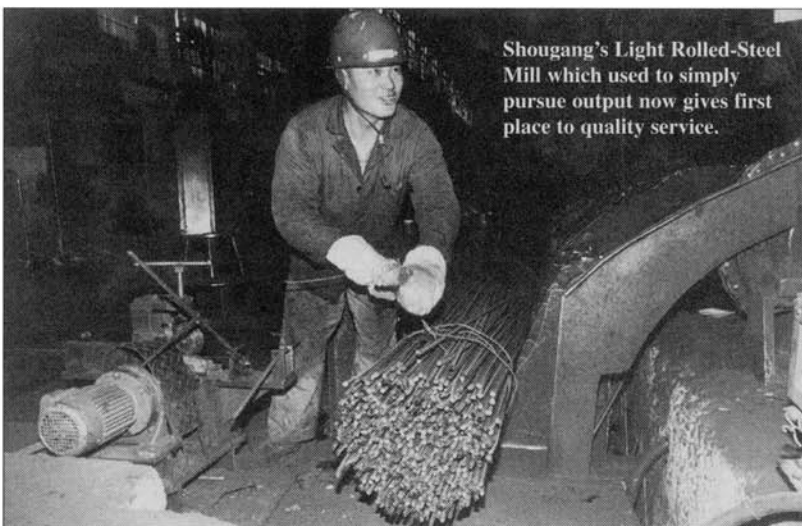
steel stood at about 8 million tons, 231,000 tons less than in the previous year, a 2.8 percent decrease.

Rolled steel output reached 6.656 million tons, 431,000 tons more than the previous year, a 6.92 percent rise.

The company's 1995 sales revenue amounted to 22.9 billion yuan, up 2.46 percent from the previous year. There was also a substantial growth in foreign exchange earnings from exports. The export volume of iron and steel products in 1995 reached 767,000 tons, up 27.83 percent from the previous year. Product stockpiles were reduced dramatically. For example, by the end of 1995, the stock of rolled steel dropped from 395,600 tons in the early year to 116,800 tons.

Since 1995, Shougang has suspended the construction of 10 major projects and reduced investments in fixed assets totaling 10.7 billion yuan. At the same time, the company has concentrated funds and resources on completing projects urgently needed for environmental protection and production.

heng (second left), a furnace man for 12  
ports the company's market-oriented new  
asures.



Shougang's Light Rolled-Steel Mill which used to simply pursue output now gives first place to quality service.

incentive program while steadily improving overall management.

While implementing its reforms, the company established a parent-sub-sidiary system, merged the two-level organizations of the general company and the original Beijing Steel Co., and

experimented with the separate establishment of subsidiaries, gradually forming several legal entities.

"In the past, Shougang practiced a highly centralized, planned economic system," said Hai Qing, a strip-steel works leader. "There was only one

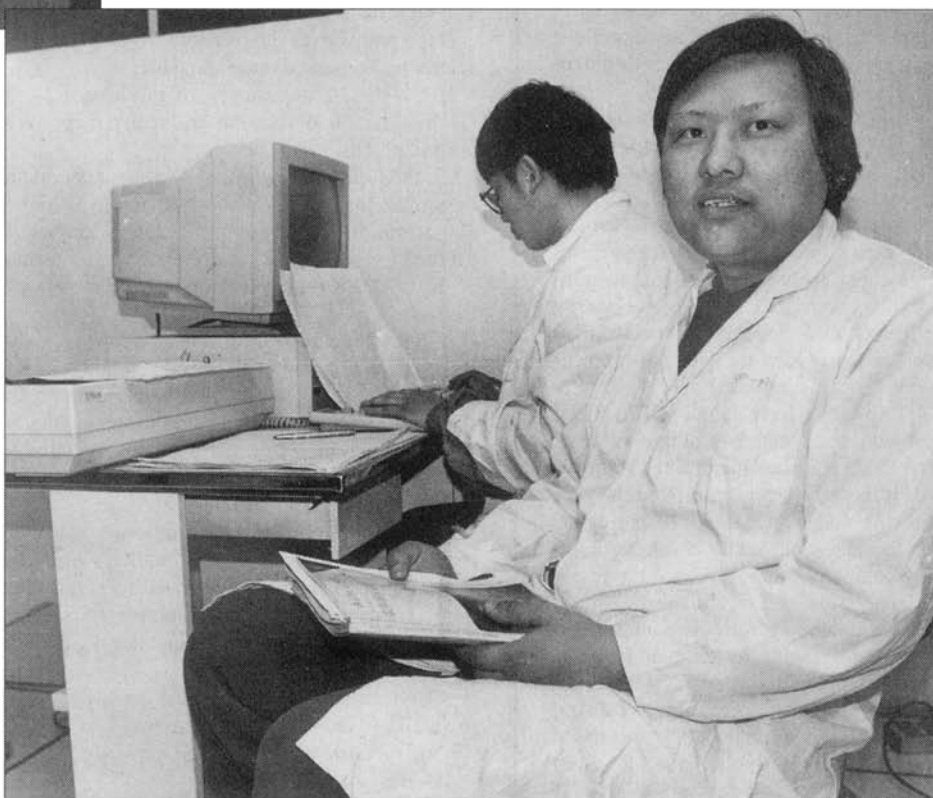
**Modern enterprise system has provided impetus for the design office of the Electronic Controls Equipment Co. under Shougang to undertake design projects entrusted by other units.**

Photos by XUE CHAO

Despite a drastic reduction in the price of rolled steel, the company earned 4.5 billion yuan in profits, down 13.56 percent from the previous year. Taxes were valued at 6.05 billion yuan, down 8.3 percent. It also paid 2.236 billion yuan in taxes to the state, up 5.03 percent on the previous year. After a full year of efforts in 1995, the company's total assets increased 260 million yuan from January to the end of the year.

### Modern Enterprise System

In response to the requirements of the socialist market economy, Shougang set about to solve difficult and major issues related to management and operations, forming an effective



independent legal person for the whole company, and 240,000 people 'ate from the same rice pot.' Prompted by the erroneous policy which led people to shout 'Long Live 10 Million Tons of Steel,' our joint-venture factory, which should have operated in line with the social demand, lacked decision-making power over production and operations and was drawn into the vortex of blindly pursuing high output.

"In order to fulfill the goal of high output imposed on us from the higher authorities, we had no alternative but to risk equipment and manpower. As a result, equipment was damaged and management chaotic.

"As a result of being enclosed in a small circle of centralized power, and paying no attention to the demands of the social market, there was product overstocking and a scarcity of funds; production and operations were on the brink of an impasse.

"Grouping reform is the inevitable trend of enterprise development. It has enabled the enterprise to become a legal entity characterized by independent management, self-responsibility for profits and losses, self-development and self-restraint and to be the mainstay of market competition. It has also enabled the enterprise to directly enter the market, providing an excellent opportunity for the sound development of the enterprise."

Ma Jinzhi, manager of Shougang's No.3 Construction and Transport Co., said, "Shougang's effort to engage in grouping reform and establish a parent-subsidiary system has helped turn the enterprise into an independent economic entity which assumes sole responsibility for profits and losses. It now engages in independent management and has provided us with an unprecedented opportunity," he said.

"So far we have developed 70 social projects and created an output value of over 2.7 million yuan. This achievement has effectively improved the production and management of the enterprise and revitalized the machine-delivery company."

The year 1996 will mark Shougang's transition from the contract system to the new tax system and its operation in line with the new system established through grouping reform. Although the company still faces many difficulties, it has made a good beginning. ■

## Kaidong Benefits by Science and Technology

by Tong Gao

**K**aidong Glassworks in Tangshan, Hebei Province, specializes in the production of packing containers.

Five years ago, the organization's leaders were faced with a major dilemma: Although they possessed fixed assets of 980,000 yuan, their debts totalled 770,000 yuan, in addition to 1 million yuan of latent losses.

Given the situation, the firm was forced to suspend production and send its workers home. But it still had to pay them 60 percent of their wages.

During the past five years, the company has been miraculously transformed.

The company's assets have increased to 20 million yuan, and the production system has been transformed from the manual to a computer mode.

For three successive years, the annual taxes and profits Kaidong delivered to the state could have been used to set up another plant of similar size.

"We've taken a transformation road by relying on scientific and technological progress," said Tian Fengdong, director of Kaidong Glassworks.

When Tian took office in early 1991, he devoted his attention to potential markets for the company's products. In keeping with his hunch that demand for glass products was going to increase, he worked out a plan with his colleagues for renovating production facilities and developing a new line of products.

They managed to collect some 200,000 yuan for crucial technical renovation, which solved the problem of uneven thickness of glass containers. The qualification rate of products after the renovation increased by 16 percentage points over the previous 76 percent, and indexes of technical characteristics surpassed state standards.

As a result, the supply of products fell short of demand. In 1991, Kaidong repaid all its debts and realized approximately 1.2 million yuan of pre-tax profits.

In the following two years, Kaidong conducted technical renovations on its equipment and productive technology, which significantly reduced energy consumption and the use of raw materials. The renovations also contributed to the production of better quality products.

By 1993, Kaidong was one of the most advanced glassworks firms in China.

Approximately 40 million yuan are needed to establish a new glassworks with a design capacity of 150,000 tons, according to experts.

By completing its technical renovation project with 17 million yuan in 600 days, Kaidong saved capital roughly equal to the amount which would have been required to construct a similar facility.

In 1994, the company produced 250,000 tons of glass, an amount which exceeded the facility's design capacity.

Modern production methods are enhancing the firm's capacity to develop new products of high quality. Currently, Kaidong's soft drink and special-shaped containers are well received in the domestic market due to their superb quality. In 1995, the plant's sales revenue increased 2.7-fold, and the plant's pre-tax profits increased 1.5-fold increase over the previous year.

"Under the circumstances of a market economy, a state-owned enterprise like Kaidong can find a way out of its dilemma and flourish by relying on correct thinking and methods," said Tian. ■

## New Tourism Trend: Visiting Famous Universities

Visiting famous universities has recently become a new tourist craze in urban China. Tourism sectors in Beijing, Tianjin, Shanghai and some provincial capitals are providing services to cater to this interest.

Some famous universities with a long history—such as Beijing's Tsinghua and Peking universities, Shanghai's Fudan, Tianjin's Nankai, Guangzhou's Zhongshan, Hubei's Wuhan and others—all have a profound cultural presence. Many cultural remains and statues of ancient, modern, Chinese and foreign scientists, philosophers and writers can be found on campuses. The cultural atmosphere of such sights has a special appeal unlike ordinary tourist spots.

In China, to those unfortunate ones denied higher education, campuses are often considered a sacred place of knowledge. Shen Xiaoping, a graduate from an intermediary professional school, said, "When on business trips, I

always enjoy walking on a university campus."

Shen is not alone. Many Chinese, mostly between the ages of 30 and 40, share the same fascination. They have all dreamed of attending universities, but, because of various impediments, they were unable.

Often parents tour university campuses in the hopes that one day their children will get the opportunity they missed and become a "dragon" (useful person). But things don't always turn out that way for various reasons. Some take their children to university campuses, hoping that the academic life will stimulate their children and arouse greater enthusiasm.

Some parents know the rewards of higher education and are even more passionate about having their children attend universities. One young mother, for example, said, "My husband and I both graduated from universities. During these years we buried ourselves

in work and basically took a laissez-faire attitude toward our child's studies. Recently we became worried when we saw his school report. Now we often take him for walks in universities, and sometimes we ask enthusiastic students to explain why studying is so important or even ask them to give advice on how to study better. Now he's much more interested in his classes."

As often happens, many university graduates now work in other provinces. When opportunity permits, they return to their Alma Mater to reminisce about their life, friends, and study, to keep track of changes on campus, and to visit their professors and schoolmates.

As enjoyable as this new type of tourism is, visitors should nonetheless remember that campuses are places of study. The environment must remain quiet and academic. "Uninvited guests" can sometimes be an inconvenience to campuses and students. This is why some universities do not allow "campus tours."

Sensitive to such disruption, tourism departments always consult with individual universities before allowing tourist access. ■



## Bright Vistas for Railway Tours

**T**rains are indispensable for most tourists, especially in China's sprawling hinterland. According to 1994 statistics from the Ministry of Railways, some 20 percent of China's railway passengers were tourists. Economic, safe and comfortable rail travel, with its convenient services—food, accommodations and sights—are enticing for travelers on limited budgets, retirees, and occasional tourists.

In recent years, China's railway tourism has quickly expanded. Beijing, Shanghai, Guangdong, Heilongjiang's Harbin, Liaoning's Shenyang, Shaanxi's Xian, and Xinjiang's Urumqi have established rail travel services and tourist services, making fine use of superior railway networks which link scenic spots with historic sites and tourist destinations. They also provide food, accommodations, travel, tours, shopping, recreation and other services.

Today, China's railway system has 104 travel services and groups and has started 32 shuttle trains to various key cities in China, reaching Heilongjiang's Heihe in the north, Guangdong's Zhanjiang in the south, Shanghai in the east and Xinjiang's Alataw Pass in the west. In 1994 alone, trains hosted 2.14 million tourists.

In 1985, the renowned Orient Express, the luxury tourist train traversing Europe for over 100 years, started a new line from Istanbul, entering China at Xinjiang's Torrogort Port, directly reaching the Silk Road itinerary at Xian. In 1988, it opened a line from Zurich, crossing the Eurasian Continent and entering China from Manzhouli, directly reaching Beijing.

Although China's railway tourism has made a strong start, patrons have been rather slow to follow. Unsystematic and poor administration were the chief problems. In 1994, railway travel agencies only serviced 4 percent of China's tourists. Therefore, with approval from the State Economic and Trade Commission, the Huayun

Railway Tourist Group under the Ministry of Railways was established in October last year in Beijing. This large umbrella group, with the China Huayun Travel Service as its nucleus, consolidates China's 104 railway travel services and includes star-level hotels and railway convalescence homes, providing food, accommodations, travel, tours, shopping, recreation and medical treatment and other services.

Tourist groups travelling with the Huayun Railway Group receive all the above services on one ticket. This ticket is valid when passing through several cities or changing several trains, eliminating ticket hassles en route. At the same time, the Huayun Railway Group has raised money to improve services and operate top-notch tourist trains. China's railways can link surrounding countries and extend tourist trains to Russia, Mongolia, Korea, Kazakhstan, Hong Kong and other countries and regions to speed up the appeal and internationalization of railway tourism. ■

## '96 Chengde Holiday And Leisure Tours

**T**he Chengde Tourism Administration is offering a new, special itinerary combining sightseeing and holidays.

- The Mulan Enclosure, situated in north Chengde, was a famous royal hunting park in the Qing Dynasty (1644-1911) with a vast sea of forest, a checkerboard of lakes, and pleasant climate.

After visiting the ancient Ulanbutong Battlefield, tourists can also enjoy the East Temple Palace rock inscriptions and other cultural relics and ancient remains, natural forests, carpeted grasslands, Man and Mongolian dances, horse-racing, ethnic culture and sports activities. The more adventurous can try evening bonfires, open air cooking, mushroom picking, volleyball, football, tennis, horse-racing, archery, fishing, and other athletic endeavors. Tourists can also stay in Mongolian yurt holiday villages and hunters' village hotels in the luxurious grassland.

- Fengning Pastureland. The northern plateau in Fengning County is a natural pastureland set on a high plain that is home to vast herds of grazing cattle, sheep and horses. The summers there are cool and pleasant. Visitors can not only appreciate the pasturelands but can also relax with evening bonfires, song and dance

parties, visits to herdsmen's houses, horse-riding, parasailing or hot air ballooning, hiking and hunting. Mountain yurt touring is also available.

- Royal Gardens. The Summer Villa in Chengde is the largest classic royal garden in China. In 1994, UNESCO listed the Summer Villa and its surrounding temples as a world cultural heritage.

Touring the Summer Villa includes touring the Villa in the evening, visiting the outer eight temples and Hammer Peak, tasting Qing Dynasty court cuisine and attending a court banquet, complete with music, dances and religious rituals.

- The Great Wall at Jinshan Mountain, known for its strategic passes and gate towers, is the most impressive section of the Great Wall. The majestic countryside and the sheer feat of engineering the Great Wall represents are unforgettable. Historic sites and folklore activities bring the old and new Chinese culture alive.

- The Wuling Mountain, the main peak of the Yanshan Mountain Range, is known as the "best peak in east Beijing" because of its rugged elevation. It is a natural reserve under state protection. The Xinglong Observatory, also on the mountain and one of the five largest observatories in China, has advanced observatory equipment and boasts the largest 2.16-meter-diameter telescope in the Far East. The observatory is open to the public as a scenic spot for popular science tours in the Xinglong Tourist Area. ■



## Ziyang Selenium Tea Enjoys Ready Market

**Z**iyang County, Shaanxi Province, has actively turned local resources into export commodities by developing a series of natural selenium foods and health products. Its natural selenium tea product series has won more than 20 domestic and international prizes, providing great relief for numerous people suffering from selenium deficiency.

The county is the second region abundant in natural selenium. The geological structure in the county includes a rock stratum and soil base which yield respective selenium contents of 5.66-32.06 ppm and 3.98 ppm. Therefore, the county's agricultural and sideline products, as well as many specialties, contain high levels of selenium element.

Some two-thirds of China's total territory lack sufficient selenium, an essential trace element required by the human body. Selenium deficiency is a major contributor to over 40 diseases such as anemia. Therefore, bright prospects exist for developing natural selenium food products and tea.

Ziyang is the largest tea production base in northwest China. The county government, which has regarded the

development of natural selenium tea as a major focus of resource development in recent years, has established 5,800 enterprises specializing in the production of tea. Currently, the county's tea plantations cover 8,000 hectares, with the annual output standing at 1,500 tons.

In 1990, Ziyang's natural selenium tea passed the technical appraisal of the Shaanxi Science and Technology Commission. Experts point out that the highly beneficial pollution-free products have broad prospects for development. Experts from the United States, France, Japan and Taiwan are conducting in-depth research into the cancer resistance and health promotion functions of the product. One famous British biologist, who also serves as chairman of the International Tumor Treatment Fund, has completed anti-oxidation tests on all varieties of the tea and verified the effectiveness of Ziyang tea.

Ziyang natural selenium food products and tea not only enjoy a ready market in major Chinese cities such as Beijing, Tianjin, Shanghai, Wuhan, Shenzhen and Nanjing, but are also gaining popularity in many countries and regions, including Japan, the Republic of Korea, Singapore, Taiwan and Hong Kong.

by *Li Rongxia*

## Intel Assists China's Computer Industry

**I**ntel Corp. (UK) Ltd. has joined forces with China's Ministry of Electronics Industry (MEI) in a series of agreements to expand China's computer industry. Under the program, Intel and MEI will join hands to improve the viability and competitive strength of China's computer and software manufacturers.

While continuing its project of advanced comprehensive integrated circuit technology, Intel will cooperate with Chinese companies to design and produce desk-top computers and service adapters. Educational and multimedia applications are also in the works.

As part of the agreements, MEI will

help develop desk-top computers and service adapters using the energy-efficient and high-density Pentium processors. The MEI encourages China's computer industry to cooperate fully with Intel.

To jump start China's computer and software manufacturers, these agreements stress cooperation and improved technology and customer service.

In addition, Intel has signed an agreement providing China with technological guidance and standards on mother board designs through China's Great Wall Computer Group. According to the agreement, the Great Wall Group has rights to master design technologies provided by Intel, and will then produce and sell its own personal computer systems using new generations of the Pentium processor to fulfill China's market demands. ■

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## New Microprocessor Used

**T**exas Instruments (TI) Asia Ltd. recently announced that its TI486DX-100 microprocessor is being used for the AceNote350E Notebook PC produced by Acer Computer Inc. The latter company is currently marketing the product to consumers and small businesses in Southeast Asia. This represents the latest major design achievement for the TI486DX-100, and reflects the continuing demand for 486-based systems from the world's fastest growing PC consumer blocks—the individual consumer and small office/home markets.

TI has supplied 486-class CPUs to the OEM market for more than three and one-half years. The company's market for the new microprocessors grew much more rapidly than those for

the 386 microprocessor market in the latter half of 1995. Other OEMs in the Asia-Pacific Region have also recognized the beneficial features of TI 486 CPUs. For example, the Samsung Electronics Co., the Daewoo Telecom Ltd., the Legend Group and the China Great Wall Computer Group are currently using TI 486s in their personal computers.

The 486 market is expected to approach 5 million units, or more than 25 percent of the total market, in the first quarter of this year, according to Mercury Research, a market-research company based in Scottsdale, Arizona.

## Zhenjiang to Host Trade Seminar

**Z**henjiang City, Jiangsu Province, plans to host an international trade seminar between October

8-12 this year. The event will offer a variety of activities such as foreign economic and trade talks, tours and sight-seeing, commodities exhibitions and a food festival. This will be the third seminar of its kind the city has hosted since 1988.

The total value of commodities transactions for the two previous seminars reached 13.79 billion yuan, with contracts for 1,096 projects valued at US\$3.58 billion, including negotiated foreign investments of US\$1.48 billion.

Joint ventures and cooperative enterprises are currently enjoying prosperous operations. The city plans to offer 250 domestic and foreign joint-venture and cooperative projects, during the coming seminar, which is expected to involve US\$500 million of negotiated foreign investment.

A number of major foreign companies will participate in talks for joint-venture and cooperative projects.

by *Zhu Guangbao*



## Beijing to Host World Conference on *Taiji*

The Third World Conference on *Taiji* Training will be held in Beijing between October 20 and 26, 1996.

The conference, featuring experts from 12 health sciences throughout China, will discuss the best ways to keep fit, guide Chinese people to improve their quality of life, control its movement, preserve the vigor of the youth and enjoy a long life.

Points covered include:

### A. Junior workshops (every morning)

1. Training classes on *Taijiquan*, static *Qigong* and medical massage.
2. Participants can choose from various lectures, including 42-styles of *Taijiquan* from the Yang, Chen, Sun and Wu styles, static *Qigong*, *Liuzijue* (six sounds breath) and medical massage.
3. Lectures on China traditional preservation culture are available for all trainees.
4. Discussions of findings related to "access to being 100 years old" for all.

### B. Optional activities (every afternoon or evening)

1. Academic seminars on the subject related to "access to being 100 years old".
2. Cardiovascular and cerebrovascular health care.
3. Sex health care.
4. Weight reduction using *Qigong*.
5. Recovery service.
6. A *Taijiquan* tournament including 24-style, 42-style and optional exercises from Chen, Wu, Sun, Yang and Wu styles, as well as men's and women's team championships.

7. The First China Preservation Fair will display their products and hold trade talks.

8. The China Preservation Book Fair.

9. Salons on culture and health preservation from the Taoist school.

All interested persons are welcome to attend. Groups with more than 40 members are eligible for a gold emperor medallion with a gold necklace.

**Application:** Please send registration fee, along with two pictures, and your name, address and telephone number to the address below. Be sure to list subjects and workshops you plan to attend.

**Registration fee:** US\$250 (US\$300 if mailed after August 31)

**Food and accommodation:** US\$65 per day per person (four-star hotel)

**Liaison Office:** Organizing Committee Secretariat

3rd World Conference on Taiji Training,  
No.4, Tiantan Donglu, Beijing 100061, China

**Tel:** (8610) 67031417

**Fax:** (8610) 67031874

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All-China Federation of Returned Overseas Chinese,

China Senior Persons' Association,

Global Health Preservation Research Center  
for Centenarians.

## Gigantic Guangdong-Hainan Bridge

China plans to invest 46 billion yuan to construct a gigantic bridge spanning the channel between Guangdong Province and Hainan Island. A large contingent of over 100 experts from across the country recently appraised the feasibility study and approved the plan.

Experts estimate that it will take 30 years following completion of the project to recoup the capital outlay. Nonetheless, the project is expected to yield good economic returns as well as social benefits which will help develop Hainan, China's southernmost province. In addition to being China's largest special economic zone, the province is of strategic importance in terms of national defense.

Construction crews will be required to overcome numerous difficulties, including the extensive water surface, deep water, strong winds and heavy seas characteristic of the Qiongzhou Channel between Guangdong and Hainan Island. Experts surveyed 10 possible sites for construction and selected a 19.5-km-wide section known as Xinwuxian. The bridge will span 47.75 km.

Construction of the bridge will begin in 2010 and last for 10 years. It will become a section of the national road from Heilongjiang Province, China's northernmost province, to Sanya City in Hainan Province. ■

## Illegal Software Manufacturer Closed

Chinese authorities recently raided the Jin Die Science and Technology Development Co., located in Guilin, the Guangxi Zhuang Autonomous Region, confiscating more than 5,500 counterfeit CD-ROM disks.

The action, carried out jointly by officers from the Guangxi Administration for Industry and Commerce (AIC) and the Guilin Municipal AIC, represents a successful action taken against a manufacturer engaged in pirating software.

Authorities took action after receiving a complaint from Microsoft Corp.

concerning the plant's illegal operations. The Guilin company, which is registered as a mainland-Hong Kong joint venture, has been producing VCD, LD and CD-ROM software since early last year. The majority of counterfeit CD-ROM disks confiscated during the action carried Microsoft titles.

"Guangxi and Guilin AIC officers took immediate action upon receiving evidence to the fact that the plant was indeed engaged in the illegal replication of copyrighted software," said Jia-

Bin Duh, president of Microsoft (China) Ltd., Co.

Wang Huapeng, director of the National Copyright Administration of the People's Republic of China, confirmed the action, and reiterated the administration's commitment to halt the illegal manufacture of copyrighted materials.

"The Chinese government stands firm against pirating activities and will institute severe action against any company engaged in same," said Wang. ■



## China Guotai Securities Co. Ltd.

The China Guotai Securities Co. Ltd. was jointly established by the Ministry of Finance, the Industrial & Commercial Bank of China, the Agricultural Bank of China, the Bank of Communications, the Construction Bank and the People's Insurance Company of China.

The enterprise opened for business on October 5, 1992, and now has registered capital of well over 1 billion yuan. The stockholder financial enterprise, which is based on state banks and large state enterprises, focuses mainly on nationwide transaction involving negotiable securities.



**Add:** No. 135 Yanping Road, Shanghai 200042, China.

**Tel:** (8621) 62580818

**Fax:** (8621) 62581911

## State Art Troupes: No Longer an 'Iron Rice Bowl'

State art troupes are no longer an iron bowl with the recent introduction of a system on employment contracts adopted by China's Ministry of Culture for central artistic groups.

The move unfolds the second phase of a reform program for central art troupes, which started two years ago.

Members of artistic groups directly under the ministry, leaders, noted artists and regular performers, have to pass an examination before being assigned to their posts.

"I've tested others for 30 years," said famous composer Wang Shiguang, walking out from the examination hall, "but this is the first time I have been tested."

After seven days of training and a strict test, Wang and 62 others were recently appointed as new leaders of the ministry's 10 reorganized artistic groups and three service centers.

Various groups are now hiring their staff on contract.

The old administrative system for China's performance troupes was established when the nation practiced a planned economy. Therefore it is not suitable for a market economy currently being implemented.

As a result, problems involving matters such as performances, personnel training, finance and management have emerged.

In the past artistic groups relied on state allocations, and their members had little knowledge of market conditions. Furthermore, artists had fewer opportunities to practice and show their artistic talents because the more performances organized, the greater losses groups would incur. Therefore, many regularly took leave to seek additional income from other sources. Nonetheless, the number of performers employed by such groups continued to rise.

Aging problems also emerged as the number of performers over 40 exceeded those of younger years.

"The old system of artistic troupes has come to an end, and reform must be carried on," said vice-minister of cul-

ture Ai Qingchun.

Beginning in 1994, the first phase of the ministry's reform plan involved a change in of the relationship between the state and the troupes. The plan called for state support of central troupes via subsidies for performances.

The move has stimulated the enthusiasm of the troupes. In 1994, they

organized 1,196 performances compared to 200 in the past, and earned 3 million yuan in profits.

The current reform program focuses on changing the relationship between performers and their organizations.

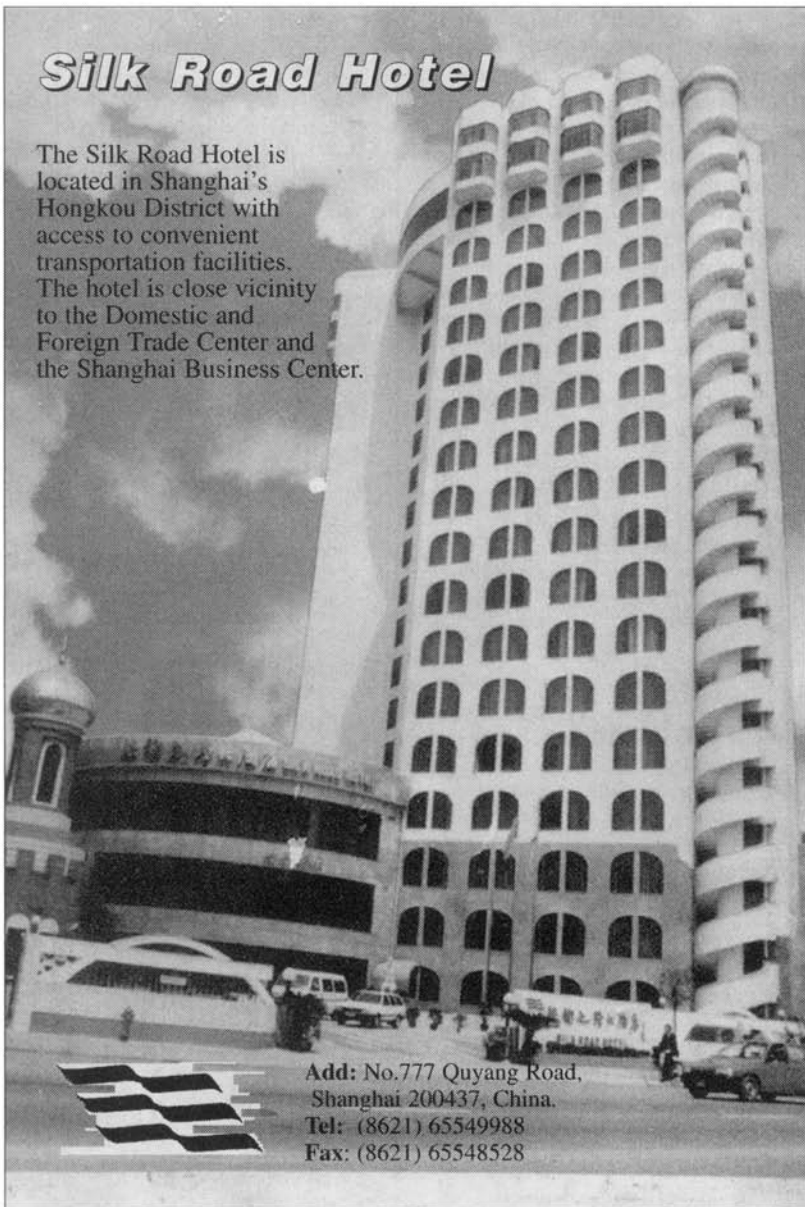
The ministry has established 15 recruitment examination panels of top artists, educators and specialists to test artists. Those who fail the tests will be assigned to other jobs.

Similar reforms are being planned for local groups, according to officials from the Ministry of Culture.

by *Feng Jing*

### Silk Road Hotel

The Silk Road Hotel is located in Shanghai's Hongkou District with access to convenient transportation facilities. The hotel is close vicinity to the Domestic and Foreign Trade Center and the Shanghai Business Center.



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## Kids Demonstrate Calligraphic Gifts

The Art Gallery of China recently held its first exhibition of young calligraphers' works.

The works were contributed by calligrapher Hanshi and his young followers.

The 34 kids "calligraphers" ranging in age from 7 to 14 have learned the art from five months to five years.

Nonetheless, they illustrated thousands of years of the evolution of Chinese characters, including inscriptions on bones or tortoise shells from the Shang Dynasty (16th-11th BC), seal characters, official scripts from the Han Dynasty (206 BC-220AD) and regular scripts.

Their teacher Hanshi, a 41-year-old calligrapher, believes that calligraphy is a kind of cultural cream in China, and some children are gifted in this field.

"I regard it as my duty to teach them and pass the ancient art to younger generations," he said.

by Li Bin



## A Popular Science Documentary Aired

The comprehensive popular science documentary series *Miracle Window* was aired on CCTV-1 this past January.

Sponsored by DEC China Co. Ltd., the 100-episode popular science telefilm presents in-depth coverage of computers. Using simple and easily understood explanations, the telefilm makes it possible for viewers who know nothing about computers to understand how they work and how to use them.

Officials from DEC China Co. Ltd. say modern information technology, and computers in particular, has become a major factor in the daily lives of Chinese people.

But many people do not have access to systematic information about computers and how they work.

Therefore, the telefilm *Miracle Window* is making an important contribution to computer knowledge in China. ■

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# Huangpu River Tour



## *A View of Shanghai & Pudong*

- Three golden navigation lines for sightseeing on Asian Waters for overseas guests:

15 km roundtrip from Shanghai's Bund to the Yangpu Bridge,

30 km roundtrip from Shanghai's Bund to the Pudong Gaoqiao Bridge (evening tour).

60 km roundtrip from the Huangpu River (New Bund) to the mouth of the Yangtze River emptying into the East China Sea.

- Sights along the route:

Ancient astronomical signal tower, the New Bund, the People's Heroes Memorial Tower, the Waibaidu Iron Bridge, the Pearl of the Orient Tower, the Yangpu Bridge, Fuxing Island, the largest container harbor area in China, the ancient town of Wusong, the ancient Wusong Fort, the Wusong Signal Tower, the 1,000-meter-long Yangtze River Breakwater Stone Embankment, a glimpse of the Baoshan Iron and Steel Plant, the Waigaoqiao Harbor Area and mouth of the Yangtze River emptying into the East China Sea.

- Luxury pleasure boats with a sightseeing deck, amusement hall, ballroom, bar, and industrial exhibition pavilion, restaurants serving Chinese and Western cuisine, and teahouse.
- Pleasure boats provide first-rate services from 09:00-21:00 daily.

### **The China Shanghai Huangpu River Tour Co.**

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CHINA XIANYANG HEALTH PRODUCTS FACTORY

# 505 Vital Herb Belt For Children

*The 505 Health Products, which are sold in more than 100 countries and regions, have cured or relieved the suffering of tens of millions of patients. The achievement in using external health aids to treat internal illnesses represents a new contribution made by Prof. Lai Huiwu to several millenia-old traditional Chinese medicine (TCM).*

The 505 series of health-care products, which are sold in more than 100 countries and regions, have cured or relieved the suffering of tens of millions of patients. The achievement in using external health aid to treat internal diseases represents a new contribution made by Prof. Lai Huiwu to the millenia-old traditional Chinese medicine.

The 505 Vital Herb Belt for Children is one of the series of 505 health medicines, invented by Prof. Lai Huiwu who studied famous cases, medical literature, proven remedies and health prescriptions.

The product is made from a specially selected mixture of valuable natural herbs that target infant problems such as abdominal weakness and high susceptibility to chills and fever. The belt draws on TCM principles and can be used on children of 10 years old or under.

The 505 Vital Herb Belt For Children has been honored as a magic herb belt and a wisdom crystallization of people of all circles. It has been highly praised by news agencies, TV and radio stations, magazines and newspapers in China, the United States, France, Japan, Thailand, Hong Kong and other countries and regions.

**Main Functions:** Nourishing life essence and vital energy, curing indigestion, enhancing the kidneys and immune function, improving the spleen and stomach, ventilating troubled lungs and soothing asthma, relieving convulsions, and preventing influenza and fatal epidemic diseases.

**Health Care:** Indigestion, anorexia, malnutrition, vomiting and diarrhea, nephritis, frequent micturition, common colds and coughing, high fever, convulsions, asthma, pneumonia, imbecility and slow development.

**The Shannxi 505 Medicines & Health Products Import & Export Corp.** is responsible for export business and handles global mail orders all year round.

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**Fax:** (0086-0910) 3236791  
**Contact Persons:** Mr. Li and Miss Li

**General Agent in Singapore:**  
 The Beng Kang Import & Export Corp.  
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**Tel:** (65) 2692401, 3671546  
**Fax:** (65) 3675859  
**Contact Person:** Soh Chee Beng

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4812740, 4811326

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FE FU

**Oral Tonic**

The development of heavy industry has led to different degrees of environmental pollution. Today, pollutants enter the human body through drinking water, breathing polluted air and in some cases through the consumption of food. Pollutants cause biochemical reactions in the human body which can cause either temporary or permanent illness. Large amounts of pollutants entering the body cause acute poisoning, thereby posing a serious threat to health.

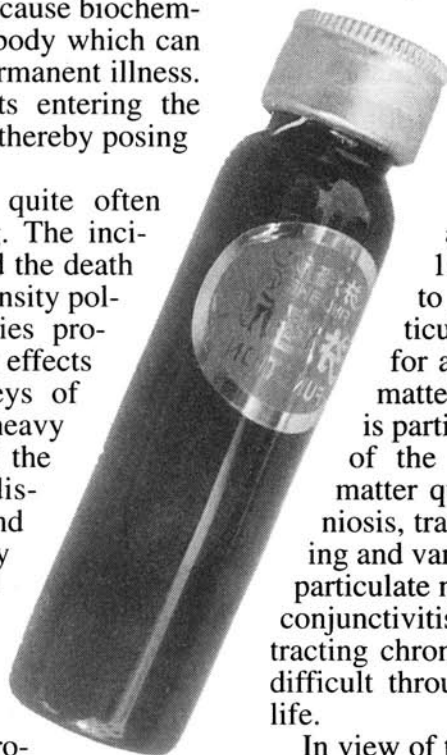
Environmental pollution quite often results in chronic poisoning. The incidence of certain diseases and the death rate will be high when lowdensity pollutants emitted from factories produce repeated and long-term effects on the human body. Surveys of industrial cities subject to heavy pollution have revealed that the incidence of respiratory diseases, including tracheitis and pharyngitis, is significantly higher than in less polluted areas.

During the production process, many industrial enterprises emit smoke, dust particles and other micro-particulate matter into the air. For example, heavy concentrations of dust particles are created from powdered ore in mining areas, as well as from crushed materials at refractories, building materials factories

and kilns. In addition, microparticulate matter can be found in packaging and transportation operations, cotton dust is found in textile mills, and rock dust is prevalent in operations involving rock cutting and demolition. Melting lead, zinc and other metals lead to the rapid oxidation of particulate matters in oxides.

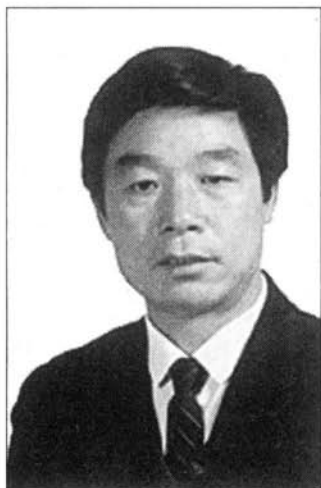
Due to the effects of gravity, particulate matter entering the air, especially particles with a 10-micron diameter, fall quickly to the ground, while micro-particulate matter remains airborne for an extended period. Particulate matter is a severe health hazard, and is particularly harmful to the function of the lungs. Breathing particulate matter quite often leads to pneumoconiosis, tracheitis, severe asthma, poisoning and various other disease. In addition, particulate matter can cause dermatitis and conjunctivitis. Simply stated, people contracting chronic diseases will find recovery difficult throughout the remainder of their life.

In view of the aforementioned scenario, it is imperative to strengthen environmental protection. At the same time, however, people also hope for the creation of a new type of multi-functional tonic that will effectively eliminate various elements harmful to the





# functional



human body. Such a tonic should not only ward off disease, but should also enhance treatment, recuperation, postpone aging and build resistance to disease, as well as help to prevent and eliminate the harm of environmental pollution to people's

health.

FE Function, a high-tech product jointly created by the College of Life Sciences at Fudan University in Shanghai and the Anhui FE Function Medicine (Group) Co., fully satisfies the desires of the people.

FE Functional Oral Tonic was developed in accordance with the principles of the life sciences and related foreign materials. The tonic is based on a scientific prescription consisting of nutritious substances and organic elements extracted from special wild Chinese herbs. Modern technology is used to process the product which fulfills all state regulations.

FE Functional Oral Tonic is made of the FE enzyme created by Fudan University and is supplemented by natural substances. The

tonic contains low-level heat and a high nutrient level, but is free of hormones, chemicals and chemical antiseptics. The new oral tonic offers both nutrition and treatment functions. The main ingredient is FE biotin, an active substance which enhances organic action, thereby effectively combating germs and diminishing inflammation, while at the same time warding off infection and promoting organic recovery. When taking the oral tonic, FE biotin operates much like a so-called "iron broom" to rid the body of harmful substances. The tonic enhances the body's immune system, adjusts and coordinates health, prevents disease, slows the pace of aging, relieves fatigue and promotes organic recovery.

Tests reveal that FE Function plays an extremely important role in controlling and killing gram-positive germs, especially the germ known as golden staphylococcus. Taking FE Function has also enhanced the vitality of various patients suffering from SOD, a fact indicating that the oral tonic helps to adjust physiological functions and strengthens the functions of the immune system.

FE Function offers an extensive array of curative properties, including the alleviation of symptoms of various diseases, resistance to infection and anoxia and enhancing strength. The successful development of FE Functional Oral Tonic is a monumental contribution to the health of mankind.

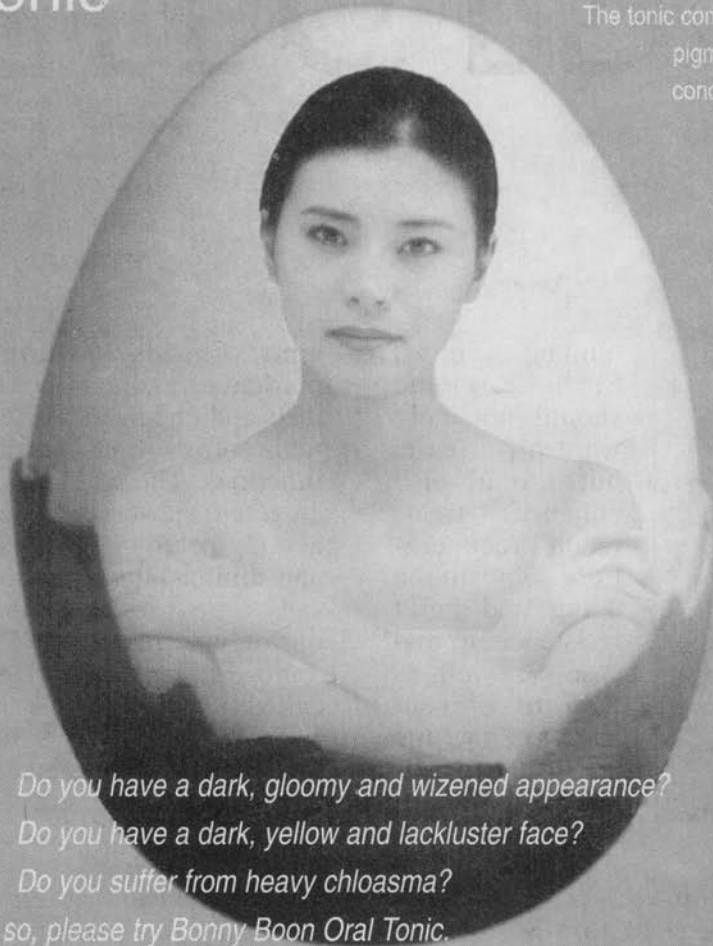
# Bonny Boon



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## Oral Tonic

The tonic contains no hormones, pigmentation, excitants, condiments or chemical preservatives.



- Do you have a dark, gloomy and wizened appearance?
  - Do you have a dark, yellow and lackluster face?
  - Do you suffer from heavy chloasma?
- If so, please try Bonny Boon Oral Tonic.



Beijing Feng Chun Tang Medical & Health Products Co. Ltd.

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## Chinese Paintings by Zhou Hua

Zhou Hua, 58, a native of the Guangxi Zhuang Autonomous Region, is a member of the Guangxi Branch of the Chinese Artists' Association. A college graduate in the 1960s, Zhou teaches at the Guangxi Agricultural University.

Specialized in painting plum, orchid, bamboo and chrysanthemum, he is also expert in landscape painting. In addition, he has held numerous one-man art shows in the Chinese cities of Wuhan, Xian and Nanning, as well as in Hong Kong, Singapore, Japan and the Philippines. Zhou's biography has been added to the *Dictionary of Chinese Modern Calligraphers and Artists*.



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# FE FUNCTIONAL Oral Tonic

**Feature:** Function, an oral tonic made mainly of FE biosin, is one of the world's pioneering medical innovations. The product, made of pure natural raw materials, has low heat producing qualities and is high in nutrients. Function contains high levels of amino acid, nucleotides, vitamins, physiologically active materials and micro-elements. The product contains no hormones, pigment, excitants, sugar or chemical antiseptics.

**Main Functions:** Function, which offers multi-functional nutrition, health-care and curative affects, also eliminates harmful substances in the body and increases immunity levels. The product, which adjusts to the relevant multi-functional systems within the human body, has extensive curative properties, including providing resistance to anoxia, megathermal, fatigue and colds. Function offers healthy individuals protection by destroying potentially harmful germs which cause diseases, thereby preventing susceptibility to various harmful diseases. Function plays an equally important role in both independent and supplementary treatment.

Anhui Function Medicine (Group) Co.  
Board Chairman and General Manager: Xu Bangjie

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