



## Research and Environment News from China

### Number 31 – January 2007

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#### Introduction

Within the framework of the Memorandum of Understanding between the State Secretariat for Education and Research and the Chinese Ministry of Science & Technology, the following workshops and fellowships have been approved:

##### Workshops:

- a "Life Cycle Assessment of Electrical and Electronic Equipment" will be organized by EMPA (Materials Science & Technology) and the Dept. of Environmental Engineering, Tsinghua University.
- a "Conflicts in Water Resources Allocation and Integrated Water" will be also held this year by Institute of Environmental Engineering, ETH Zurich and Institute of Environmental Engineering, Peking University.

##### Fellowships:

- Beijing Institute of Geriatrics, **Xuanwu Hospital**
- Institute of Botany, **Chinese Academy of Sciences**
- College of Resources Science and Technology, **Beijing Normal University**
- **Shanghai Jiaotong University**
- Institute of Environmental Engineering, **Peking University**
- Institute of Genetics and Developmental Biology, **Chinese Academy of Sciences**
- School of Chem. & Chem. Eng., **Nanjing University**
- College of Environmental Sciences, **Peking University**

#### Science & Technology

1. 'China may become scientific superpower'
2. China to Enhance Efficiency of Scientific Resource Allocation

##### KEYWORDS

*China, scientific superpower  
efficiently allocate scientific resource*

#### Energy

1. Official urges improvement of energy efficiency
2. Energy waste in buildings 'to stop'
3. China to audit gov't energy consumption

##### KEYWORDS

*improve energy efficiency  
stop energy waste in buildings  
gov't energy consumption*

#### Environment

1. China set to curb foreign waste imports
2. Chinese apathetic about environmental protection

##### KEYWORDS

*curb foreign waste imports  
environmental awareness*



3. **Green GDP to be expanded nationally**
4. **25 pct of China's coastal area polluted**
5. **PBOC launches green scheme**
6. **Green goal missed by big margin**

*China green GDP*  
*coastal area polluted*  
*bank's green scheme*  
*green goal missed*

## Health

1. **SARS discovery may lead to therapy**
2. **China not ready for circumcision to stop AIDS**
3. **Flu epidemic unlikely to happen in China – expert**

## KEYWORDS

*SARS discovery*  
*China fight AIDS*  
*Flu epidemic unlikely to happen*

## Activites coming up soon

March 26, 2007
<b>The 3<sup>rd</sup> Int'l Conference on Intelligent Green and Energy Efficient Building and New Technologies and Products Expo</b>
Beijing, China
Tel: 86 10 5893 4535
March 2007
<b>The 20<sup>th</sup> China (Zhejiang) Int'l Sci., Education, Medical Equi., Supplies &amp; Technical Exchange Exhibition</b>
Venue: Hangzhou Foreign S&T Exchange Center, Hangzhou, China
Tel: 86-571-8705 4042
April 2007
<b>The China Int'l TCM &amp; Healthcare industry Exhibition</b>
Beijing, China
Tel: 86-10-5865 0051
April 23 – 25, 2007
<b>The 7th International Exhibition on Nuclear Power Industry</b>
Shanghai, China
April 27 – 29, 2007
<b>The 8th China Int'l Water Supply &amp; Drainage and Water Treatment Exhibition</b>
Tel: 86-21-54592323 ext. 335
Email: <a href="mailto:andy@zhongmao.com.cn">andy@zhongmao.com.cn</a>
May 20, 2007
<b>16<sup>th</sup> IAA Humans in Space Symposium</b>
Beijing, China
Tel: 86-10-62559882
May 20-23, 2007



<b>The 14<sup>th</sup> International Conference on Interdisciplinary Mathematical &amp; Statistica Techniques</b>
Shanghai, China
May 23, 2007
<b>The 10<sup>th</sup> Multinational Urban Traffic Conference and Exhibition</b>
Beijing, China
Tel: 86-10-6217 0166
May 28, 2007
<b>Int'l Conference of Resource Recycling Utilization</b>
Tianjin, China
Tel: 86-10-68594793
May 2007
<b>The 7<sup>th</sup> International Conference for Computing Science</b>
Beijing, China
May 2007
<b>2007 China Automobil Technology Expo</b>
Wuhan, China
Tel: 86-10-6528 6970
June 5 – 7, 2007
<b>The 11th International Electric Power Industry, Power Network Technology &amp; Power Supply Equipment Expo</b>
Guangzhou, China
June 5 – 7, 2007
<b>The 3rd International Renewable Energy &amp; Energy Environmental Protection Technology Expo\</b>
Guangzhou, China
June 11, 2007
<b>ISES 2007 Solar World Congress &amp; Int'l Solar Energy Exhibition</b>
Beijing, China
Tel: 86-10-6217 4059
June 19, 2007
<b>The 10<sup>th</sup> China Int'l Environmental Protection Exhibition and Conference – CIEPEC 2007</b>
Beijing, China
Tel: 86-10-5155 5020
June 25, 2007
<b>BioEco 2007</b>
Tianjin, China
June 2007
<b>ChinaNano 2007</b>
Beijing, China



Tel: 86-10-6859 7244
August 2007
<b>ICIC 2007</b>
Qingdao, China
Tel: 86-551-5591195
November 22, 2007
<b>The 6<sup>th</sup> China Int'l Mechanism, Hardware &amp; Mould Exhibition</b>
Dongguan, China
Tel: 86-10-6859 4793

### Environment-related international tenders and investment opportunities:

[english.cepi.com.cn/homepage/homepage.jsp](http://english.cepi.com.cn/homepage/homepage.jsp)

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## Science & Technology

### 'China may become scientific superpower'

(China Daily, 2007-01-18)

LONDON: China is on the way to becoming a scientific superpower, thanks to the massive increase in its spending on research and the return of an increasing number of its scientists from abroad, a leading British think tank has said.

The report by London-based Demos, *The Atlas of Ideas: Mapping the New Geography of Science*, however, doesn't give a specific year when China would achieve that status.

But according to China's plan, it will reshape itself as an innovative nation by 2020, and could become a scientific superpower by 2050.

Nevertheless, the Demos report warns that China's long-term progress could be hampered by its rigid institutional system.

The final report is based on a series of four reports after a 18-month study led by Demos. The reports focus on the dramatic growth and pace of scientific innovation in China, India and South Korea, with the fourth providing an overview of the international situation and outlining how the UK should respond to it.

"China's Taiwan and South Korea made themselves centres for innovation over the past 20 years, and the Chinese mainland is catching up fast," the report's co-author James Wilsdon said yesterday.

"In fact, in some growth areas, such as nanotechnology, it is moving even faster than Europe," Wilsdon, head of the Demos innovation team, said.



One report forecast that the rise of China, India and South Korea would reshape the global innovation landscape. "The centre of gravity of innovation has started moving from the West to the East," the report says.

The think tank even warned that US and European pre-eminence in scientific innovation could no longer be taken for granted.

Investment into and funding of science and innovation projects in China is growing rapidly, and its impact on the international community is already significant, the report says.

Since 1999, China's spending on research and development (R&D) has increased by more than 20 per cent a year. It has replaced Japan to become the world's highest spender on R&D after the US.

The rising number of multinational R&D centers, steady return of the country's scientists from the US and Europe and the growing pool of graduates will help China realize its goal, Wilsdon said.

"Beijing's university district alone has as many engineers as all of Western Europe, and you can imagine how dynamic the potential is."

### **China to Enhance Efficiency of Scientific Resource Allocation**

(Xinhua News Agency, 2006-12-19)

China has set up a scientific resources coordinating center to improve the efficiency of scientific resource allocation and utilization.

The center is to be in charge of policy research, project management and consulting, international cooperation and training, according to the Ministry of Science and Technology (MOST).

The center is established to cope with problems such as dispersed and duplicate allocation of scientific resources, resource monopoly and low utilization efficiency in China's scientific development.

Through an information network, the center will reframe China's basic scientific resources for a sharing-based optimized system to boost efficient allocation of resources, the ministry said.

China has invested more than two billion yuan (US\$ 250 million) since 2003 in building the center.

Much has been achieved in the integration and sharing of scientific data, natural resources, and large-scale scientific equipment, according to Xu Guanhua, minister of MOST.

"An environment-friendly and efficient exploitation of scientific resources will benefit the whole country, and will in turn improve China's innovation ability," he said.

The center also recruited an advisory team of 47 experts from research institutes, universities, and companies around the country.

## **Energy**

### **Official urges improvement of energy efficiency**

(Xinhua, 2007-01-20)

TIANJIN -- China is facing daunting challenges to address environment pollution and ecosystem degradation with its remarkable economic growth, and its future for a sustainable economic development relies on efficiency improvement, said a United Nations Environmental Programme official.

"The future for a sustainable economic development, I believe, relies on cooperation across the world in industrial restructuring, efficiency improvement, adoption of renewable energies, and adjustment of the current modes of production and consumption," said UNEP deputy executive director Shafqat Kakakhel in his letter to a recent economic forum held in Tianjin.



China has become a large economy in terms of nominal gross domestic product, thus China's impact on global growth, resource allocation, trade and investment has direct consequences for the entire world, Kakakhel said in the letter.

In efforts to protect environment and build an energy-saving society, the Chinese government will accelerate the establishment of a standard scientific evaluation system on energy consumption to meet energy and pollution targets, according to Xie Fuzhan, head of the National Bureau of Statistics.

"China is playing an increasingly important role in the international development arena, and taking on more and more responsibilities in global environment governance and sustainable development," said Kakakhel

### **Energy waste in buildings 'to stop'**

(China Daily, 2007-01-19)

[www.chinadaily.com.cn/china/2007-01/19/content\\_787208.htm](http://www.chinadaily.com.cn/china/2007-01/19/content_787208.htm)

### **China to audit gov't energy consumption**

(Xinhua, 2007-01-18)

BEIJING -- China's government and large public buildings will be subject to a system to gather, audit and publish energy consumption information from this year, said Vice-Minister of Construction Qiu Baoxing on Thursday.

Seventeen municipalities and provinces, including Beijing, Tianjin, Shanghai and Sichuan, will be among the first to implement the system to calculate energy consumption.

A compulsory energy saving trial system will be applied to newly-built government buildings and large public buildings, said Qiu.

Efforts to implement energy saving codes and achieve energy saving goals would be taken into account when evaluating officials' performance, said Qiu.

The Ministry of Construction would promote the use of renewable energy to save more energy in buildings, he said.

Businesses would face severe punishment if they failed to follow energy saving codes in building design and construction.

The government was working on preferential policies to encourage the construction of energy saving buildings, such as financial subsidies and tax breaks.

The ministry will hold the Third International Conference on Intelligent, Green and Energy Efficient Buildings and New Technologies and Products Expo in March to promote the development of green buildings.

## **Environment**

### **China set to curb foreign waste imports**

(Xinhua, 2007-01-24)

BEIJING -- The Chinese government is closely watching the progress of investigation into the dumping of garbage in south China by Britain and is preparing to crackdown on illegal imports, said an official Wednesday.

Recent media reports on British garbage shipped to Guangdong Province has drawn the attention of the State Environmental Protection Administration (SEPA), the unnamed SEPA official said.

The administration had ordered Guangdong environmental authorities to launch an immediate investigation and sent an inspection team to Lianjiao Village in Foshan City.

The move followed an investigative report on Britain's Sky News TV titled "Are you poisoning China?", revealing how British plastic waste ended up in Lianjiao.



The Chinese media has reported that China exports 16 billion pounds of goods to the United Kingdom every year and receives 1.9 million tons of rubbish in return.

Located at an industrial zone in Foshan's Nanhai District, Lianjiao has become a processing center of plastic waste since the 1970s.

Investigations found that Lianjiao receives up to 200,000 tons of plastic waste every year, 80 percent of which was collected from domestic sources and the rest was suspected to be imported from overseas.

"No official approval for importing garbage has been granted to any company in this zone," the official said.

Domestic media exposed illegal rubbish imports to Lianjiao in September 2006. The Guangdong provincial government then urged the Foshan government and the provincial environmental protection department to investigate.

The local government has banned unlicensed businesses and individuals from importing plastic waste, and suspended operations at plastic waste processing factories that are not equipped with environmental protection facilities. Companies that incinerate trash or occupy public venues to store the waste were punished.

The government attaches great importance to the management of imported wastes, and strictly abides by the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal which took effect in May 1992, the SEPA official said.

Chinese law on the control of solid wastes explicitly bans imports of solid wastes that cannot be used as raw materials or be recycled by harmless means. Imports of waste that can be used as raw materials are limited and categorized by registration.

"However, driven by profits, some dealers smuggle or associate with overseas organizations and illegally bring foreign garbage to China, endangering public health and the environment," said the official.

The SEPA had been negotiating with European Union agencies on the prevention and crackdown of illegal transboundary movements of waste.

It will also work with other government departments to improve regulations and standards regarding waste imports, enhance supervision in processing waste and fight waste smuggling, said the official.

### **Chinese apathetic about environmental protection**

(Xinhua, 2007-01-18)

Beijing -- While 86 percent of Chinese think environmental pollution has had a negative impact on their health, a national report released Monday showed that most of them are apathetic about environmental protection.

The annual national report on environmental awareness, released by the State Environmental Protection Administration, surveyed 4,482 residents from 28 cities nationwide.

The report comes amid mounting concern about the environmental cost of China's breakneck economic growth.

"Chinese people are dissatisfied with the state of the environment but they seldom take part in environmental protection activities," said the report, adding that food safety, drinking water and air pollution are the environmental issues that worry people most.

More than 10 percent of metropolitan residents and 7.5 percent of rural dwellers think their living environment is "unfit for habitation". Both urban and rural residents are unsatisfied about garbage treatment, and 52 percent rural respondents consider garbage disposal "a big problem".

About 61 percent of the people surveyed said the Chinese government "pays a lot of attention" to environmental protection and 70 percent applauded the government's "environmental impact evaluation" carried out before each industrial or construction project.



But the survey failed to ask respondents about how to resolve the Chinese dilemmas: how to reconcile the desire to limit the environmental cost of growth with the need to keep the economy humming in order to provide jobs, and how to wean local officials away from their growth-at-all-costs attitudes.

Local environmental departments received about 600,000 pollution reports from the public in 2006, up 30 percent over 2005. But 76 percent of respondents did not know the national environmental protection hotline number "12369".

### **Green GDP to be expanded nationally**

(China Daily, 2007-01-18)

Reports that Green GDP accounting could be ditched because of local resistance are grossly exaggerated, a top official of the environmental watchdog said yesterday in fact, the project will be expanded to the entire Chinese mainland.

Despite reports that some provinces were dropping out of the green accounting project to protect their own interests, the official told China Daily that the 2005 report will "actually expand to cover 31 provinces and municipalities," showing "a great leap forward for the concept of Green GDP".

Officially called the Environmentally-Adjusted GDP Accounting Report, the Green GDP report is intended to drive home to the public and officials the waste created, and environmental damage done, in the process of economic growth.

Simply put, Green GDP is calculated by deducting the cost of natural resources' depletion and environmental degradation from traditional GDP.

The report for 2005 will be released next month, said Pan Yue, vice-minister of the State Environmental Protection Administration (SEPA).

The first report, for 2004, was published in September last year. Officials told China Daily that the Green GDP report is a complex accounting project which takes around two years longer than the compilation of conventional GDP figures for a fiscal year.

The 2004 report showed that the financial loss caused by environmental pollution totaled as much as 511.8 billion yuan (\$64 billion), or 3.05 percent of the nation's economy, based on the traditional GDP accounting method.

The new report will include two more indices to make the evaluation of environmental losses more accurate, Pan said. One will compute the cost caused by transportation pollution; and the other, the cost of pollution clean-up.

The effort was launched in March 2004 by SEPA and the National Bureau of Statistics. In the last two years, an accounting analysis has been made of physical quantification of environmental pollution, imputed treatment cost and the environmental degradation cost for 42 industries.

Pilot projects were launched in the three municipalities of Beijing, Tianjin and Chongqing, and the seven provinces of Hebei, Liaoning, Anhui, Zhejiang, Sichuan, Guangdong and Hainan.

Pan admitted that initially, SEPA did meet with many difficulties ranging from technical ones to resistance from regional and industrial officials. But much to his relief, SEPA has managed to work with the 10 regional governments to stick through, Pan said.

The general environmental situation remains bleak, as a result of what Pan called catering to immediate interests and reckless energy consumption.

Last year, China flunked its target of cutting major pollutants by 2 percent, which instead witnessed a growth of 2 percent.

Meanwhile, SEPA officials explained that the retirement last year of two vice-ministers senior to Pan, Zhu Guangyao and Wang Yuqing, did not mean Pan was promoted.

SEPA does not have the position of a "first vice-minister" as some Chinese-language press had reported, they said.





## 25 pct of China's coastal area polluted

(Xinhua, 2007-01-12)

[www.chinadaily.com.cn/china/2007-01/12/content\\_782605.htm](http://www.chinadaily.com.cn/china/2007-01/12/content_782605.htm)

## PBOC launches green scheme

(China Daily, 2007-01-10)

[http://www.chinadaily.com.cn/china/2007-01/10/content\\_779112.htm](http://www.chinadaily.com.cn/china/2007-01/10/content_779112.htm)

## Green goal missed by big margin

(China Daily, 2007-01-10)

[http://www.chinadaily.com.cn/china/2007-01/10/content\\_779106.htm](http://www.chinadaily.com.cn/china/2007-01/10/content_779106.htm)

## Health

### SARS discovery may lead to therapy

(Xinhua, 2007-01-20)

Chinese researchers have found a robust antibody against the SARS coronavirus remained in the bodies of recovered SARS patients for more than three years.

"The discovery will help in the research of a SARS vaccine and help find the best therapy if SARS returns," said Li Taisheng, head of the research group yesterday.

The group of researchers from the Peking Union Medical College Hospital and the Chinese Academy of Medical Sciences has been following 30 recovered SARS patients since March 2003, when the disease, also known as severe acute respiratory syndrome, began to spread in China.

Although the antibody declined moderately as time passed, it remained at a high level for over three years after the patients recovered, Li said.

"We presume that recovered SARS patients could have long-term immunity from the disease," Li said.

"More studies are needed to prove whether recovered SARS patients would have immunity from SARS for life."

He said the neutralizing antibody was the most protective of all antibodies in preventing the SARS coronavirus from invading healthy cells.

Pinpointing the neutralizing antibody would help researchers develop a more effective SARS vaccine, Li added.

SARS killed 809 people worldwide in 2003. The public's awareness of the disease is fading and many scientists have stopped research on it.

However, Chinese researchers have persisted.

Li said, "There are still many problems with SARS that cannot be explained. For instance, where did the virus come from? If it was from the civet cat, why did it spread to humans suddenly at that time? And why did it disappear as suddenly as it came? Will SARS come again?"

The research will help the prevention and control of large-scale disease outbreaks like SARS in the future, Li added.

Surveillance against the disease will be a top priority during the Spring Festival in southern Guangdong Province, the provincial health department said.

Civet cats, a raccoon-like mammal thought to be the origin of the SARS virus found in humans, are sold and consumed in Guangdong despite a ban.



"We know that eating civet cats is a tradition in these places, but we urge citizens to stop the practice for the sake of their own health," said Zhang Yonghui, head of the health supervision office under the department.

### **China not ready for circumcision to stop AIDS**

(Reuters, 2007-01-20)

BEIJING - China is still looking at evidence that male circumcision can play an important role in fighting the spread of AIDS and is not currently considering such a campaign, a senior health official said on Friday.

Late last year, researchers in the United States and Africa said that circumcising men cut their risk of being infected with the AIDS virus in half, and could prevent hundreds of thousands or even millions of new infections globally.

Circumcising men worked so well that the researchers stopped two large clinical trials in Kenya and Uganda to announce the results, although they cautioned that the procedure does not make men immune to the virus.

"We have already noticed these reports from Africa," Ru Xiaomei, deputy director general of China's National Population and Family Planning Commission, told Reuters in an interview.

"But the AIDS situation in China has not yet reached such a large scale (as in Africa)," she said.

China's family planning authorities, with decades of experience at promoting contraception, are increasingly being drafted into the country's fight against AIDS.

In China, which has an estimated 650,000 people living with HIV, the virus is gradually spreading from high-risk groups like intravenous drug users to the general population via sex.

"I'm not yet totally certain about the evidence for circumcision," Ru said. "We should exercise caution."

Circumcision rates are low in China compared to Asian countries like South Korea or Japan, where the foreskin is often removed at birth for hygiene reasons, or Muslims in countries like Indonesia who practice it for religious reasons.

China's Muslim minority, concentrated in the far western region of Xinjiang, likewise circumcise their male children, normally as they reach puberty.

That could perhaps mean a wider campaign in China would run into cultural problems and opposition from the non-Muslim majority, said Ru, a medical doctor by training,

"There's a problem with cost too," she added, in a country with the world's largest population - 1.3 billion people. "It would be a big deal. It's much more reasonable to get people to use condoms."

A US National Institutes of Health study in Kisumu, Kenya, involving 2,784 men aged 18 to 24 showed a 53 percent reduction of HIV infections in circumcised men compared to uncircumcised men. A parallel study involving 4,996 men aged 15 to 49 in Rakai, Uganda, showed circumcised men were 48 percent less likely than uncircumcised men to become infected.

Experts say the reduced HIV risk may be because cells on the inside of the foreskin, the part of the penis cut off in circumcision, are particularly susceptible to HIV infection. HIV also may survive better in a warm, wet environment like that found beneath a foreskin.

### **Flu epidemic unlikely to happen in China – expert**

(Xinhua, 2007-01-15)

[http://www.chinadaily.com.cn/china/2007-01/15/content\\_784052.htm](http://www.chinadaily.com.cn/china/2007-01/15/content_784052.htm)