



Research and Environment News from China

Number 29 – November 2006

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Introduction

China issued yesterday a five-year program (2006-2010) on international cooperation in science and technology, and promised that key national scientific and technological projects and funds would be open to overseas partners.

Pollution continues to grow in China, and the SEPA (State Environmental Protection Agency) admits in a report that the objectives are not being reached, e.g. about water pollution. A major index of water pollution (chemical oxygen demand) continues to increase in the food-processing, paper-making and chemical industry.

A workshop of Legislation on E-waste Recycling, organised by the Environmental Protection & Resources Conservation Committee, National People's Congress, P. R. China with EMPA's support (Swiss Federal Laboratories for Materials Testing and Research), will be held in Beijing on Dec. 12, 2006, within the "Knowledge Partnership in E-waste Recycling in India, South Africa and China" programme, financed by State Secretariat for Economic Affairs (SECO). Participants will include officials from Swiss and Chinese authorities and institutions/universities experts from both sides, who will discuss the current status/problems of legislation of E-waste recycling in China.

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Activites coming up soon

December 12 – 16, 2006
The Eleventh Asian Technology Conference in Mathematics
Hong Kong Polytechnic University, Hong Kong, Hong Kong
January 15-16, 2007
The 4th International Workshop on Energy and Environment of Residential Buildings (IWEERB 2007)
Venue: Harbin Institute of Technology
Contact: Mr.Zhi Weiluo
Tel: 86-0451-898 60889 Fax: 86-0451-8628 2123
E-mail: iweerb2007@hit.edu.cn
April 23 – 25, 2007
The 7th International Exhibition on Nuclear Power Industry
Shanghai, China
April 27 – 29, 2007
The 8th China International Environmental Protection Exhibition
Shanghai, China
May 20-23, 2007
The 14th International Conference on Interdisciplinary Mathematical & Statistica Techniques
Shanghai, China
June 5 – 7, 2007
The 11th International Electric Power Industry, Power Network Technology & Power Supply Equipment Expo
Guangzhou, China
June 5 – 7, 2007
The 3rd International Renewable Energy & Energy Environmental Protection Technology Expo\
Guangzhou, China

Environment-related international tenders and investment opportunities:

english.cepi.com.cn/homepage/homepage.jsp



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Science & Technology

China successfully launches new-generation satellite

(China Daily, 2006-10-30)

XICHANG, Sichuan Province: China successfully launched a domestically manufactured high-power communications and broadcast satellite aboard a Long March-3B carrier rocket yesterday.

The new-generation SinoSat-2 satellite, launched from the Xichang Satellite Launch Centre in Southwest China's Sichuan Province, is designed to provide broadcast TV, digital TV, live broadcast TV and digital broadband multimedia services to the Chinese mainland, Hong Kong, Macao and Taiwan.

The satellite split off from the rocket about 25 minutes after its 00:20 lift-off, entering a geosynchronous transfer orbit.

Its orbit will be adjusted several times by commanders on the ground until it is positioned above the equator at 92.2 East Longitude.

SinoSat-2, mainly developed and manufactured by the Chinese Academy of Space Technology, weighs about 5.1 tons and has 22 transponders. It is designed to last for 15 years, spending 12 years in orbit.

The carrier rocket used in the launch was developed and manufactured by the Chinese Academy of Launch Vehicle Technology. The launch marked the 93rd flight for the Long March series of carrier rockets and China's 51st consecutive successful space launch since October 1996.

A SINO Satellite Communications Co Ltd (SINOSAT) official said SinoSat-2 will improve the capacity, safety and reliability of China's information broadcasts and make it easier to carry out live TV broadcasts.

The original SinoSat-1 satellite, launched in July 1998, was designed to boost China's radio and TV broadcasts and communications services in the Asia-Pacific Region.

SinoSat-3, intended specifically for radio and TV services, is currently being developed. It will go into operation in 2007, according to the official.

China catching up in basic science research

(Xinhua, 2006-11-16)

BEIJING -- China is catching up with the forerunners in basic science research, with an increasing number of themes and journals compiled by Chinese scientists being referenced by the Science Citation Index (SCI), according to China's Ministry of Science and Technology (MOST).

China was ranked fifth in the world in terms of the number of its journals cited by the SCI in 2004 and 2005, up from 15th place in 1991, MOST statistics showed. "The number of our themes and journals cited by the SCI is an important indicator of the success of our research progress in basic science fields," said Zhang Xianen, the director of MOST's scientific research department.



"The greater number of Chinese scientists winning international prizes and occupying senior positions in major international research organizations also proves that China is catching up with leading countries in the field of science and technology," Zhang said. In the last two years, 14 Chinese scientists have won international prizes including the Fresnel Prize awarded by the European Physical Society, and 40 Chinese have been granted memberships to international academic organizations and science academies of other countries, he said.

MOST statistics show that there were 115,400 basic science researchers in China in 2005, 46.5 percent higher than in 2001. The Chinese government has promised to increase the country's investment in basic science research in an attempt to build a "self-innovative" country.

China starts to build own satellite navigation system

(Xinhua, 2006-11-02)

http://english.people.com.cn/200611/02/eng20061102_317576.html

China to launch 2 satellites for Compass navigation system

(China Daily, 2006-11-14)

http://english.people.com.cn/200611/14/eng20061114_321287.html

China Plans to Open Wider in Science, Technology

(Xinhua News Agency, 2006-12-04)

<http://www.china.org.cn/english/news/191029.htm>

Energy

Interview: China to develop renewable energy

(People's Daily Online, 2006-11-02)

Given that China's manufacturing technology is not advanced enough to build crucial industrial equipment, the Chinese government should formulate a favorable policy and give more financial support to the development of renewable energy, said Su Ming, deputy director of the Research Institute for Fiscal Science under China's Ministry of Finance in a recent interview.

Su stressed three points in the interview: that China should increase financial support to develop renewable energy; that backward manufacturing technology has hindered the development of crucial industrial equipment and that the government should formulate favorable policies to expedite technological updates; and that fossil fuel consumption is depleting resources.

Q: Recently, the Ministry of Finance promulgated "Interim measures for the administration of special funds for the development of renewable energy". Could you please explain the background and significance of these measures?

Su Ming: By publicizing the financial management structure of these special funds, the Ministry of Finance is sending a strong signal to the world, easing people's concerns about the energy sector and economic sector as a whole. In its rapidly developing economy, China attaches great importance to energy restructuring and security and is determined to make progress in renewable energy development.

For a long time, China's energy supply was based on non-renewable fossil fuels, which have inevitably depleted over time. Clearly this is not a sustainable practice. On the contrary, the development and use of renewable energy can be endless, and in the process creates little or no environmental pollution. There is no doubt that renewable energy will be essential in the future; China needs effective energy strategies for sustainable development. Many countries have introduced a policy promoting the development and use of renewable energy. China is one of them.

The new interim measures for the administration of special fund for the development of renewable energy define the scope and principles of the policy as well as focus on specific steps the government is taking to finance renewable energy development. This will be conducive to increasing government investment in renewable energy, better introducing social investment and bank funds into the sector, and promoting the development of renewable energy.



Big gap between China and other countries

Q: Would you please briefly outline the development of renewable energy both in and outside China?

Su Ming: For the past 20 years, many countries have supported renewable energy development. With relevant technologies developing rapidly, renewable energy has become an important part of the energy system. The capacity of wind power generators across the world increased from 1930 megawatts in 1990 to 39,390 megawatts in 2004. The output of solar energy batteries also surged from 47 megawatts to 1190 megawatts. China is still in the early stage of the overall development of renewable energy. There is a big gap between China and developed countries. Despite some substantial progress having been made and the emergence of a number of commercial technologies, China is still in the research and demonstration phase with most technology needed in renewable energy projects. Its industrial scale is small and market capacity low. In 2004 the volume of energy supplied by China's new renewable energy equals to the energy capacity of 60 million tons of standard coal, an increase of 43 million tons from 1990. However, if compared to its overall energy system, the size is still quite small, accounting for only 2.6% of the country's total energy consumption in 2004. Generally speaking, there is still a big gap between China's renewable energy development and that of foreign countries.

Financial and taxation policies of great importance

Q: What are the functions of the government and its fiscal policies in promoting the development of renewable energy?

Su Ming: Based on the economic, social, energy, and environment policy objectives for development, the government shoulders an important responsibility in supporting and promoting the industrial development of renewable energy. In different stages of renewable energy development, we need different policies and management concepts. In the initial stage, the government needs to support the development and demonstration of renewable energy and offer subsidies and tax incentives. The government should take the lead on this initiative. Once the industry has expanded and commercialized, it will not need to rely on government support. It will be a standardized, stable, constantly expanding market. The government should then reduce economic incentives and replace them with regulatory policies. Eventually government policy will be integrated with the market economy system.

There are multiple reasons for the under-development of clean energy and renewable energy resources in China. The current situation is closely tied to incomplete government functions, ineffective macroeconomic policies, and an imperfect and inadequate fiscal policy support system. The government should emphasize the development of renewable energy in its fiscal policies, both now and in the long term. Taxation policies, investment policies, subsidies and discounts should all be employed to strengthen policies favoring the development of renewable energy.

China's renewable energy industry small and weak

Q: The interim measures outlined by the Ministry of Finance clearly define the scale, focus and means of support for renewable energy development. What do you think of these strategies?

Su Ming: China's renewable energy industry is still in its infancy; it is small and weak and needs financial and policy support from the government. At present, the main obstacle to renewable energy in China is backward technology. We have to rely on imported equipment. Furthermore, given the high cost of investment, power generation and pricing, renewable energy cannot compete with conventional energy resources and there is difficulty expanding the market. The fact that we do not expect it to become an effective complement to conventional energy in the short-term further weakens the possibility of renewable energy becoming the basis of the energy industry in the future. As a result, we might lose a good chance to secure cutting edge energy technology and get a share in the international market. Consequently, there is a big need to get more financial support from the government for renewable energy development. This is closely related to important strategic issues in China such as overall energy security, energy restructuring and optimizing, and the improvement of the environment.

It is important too to bear in mind that our financial resources are limited within a certain period of time. The government should have a clear direction and focus, so that financial policies can play a leading role.

It is in precisely this situation that the Chinese government has defined the goals of this special fund and financial management policy: scientific and technological research and development; use of renewable energy resources in remote agricultural and livestock areas; exploration of resources; equipment manufacturing and more. Support will be given to key projects involving the development of alternatives to oil, such as solar energy, geothermal energy,



wind energy and ocean energy. The interim measures target the development of renewable energy in China and take into account several important factors in the development of renewable energy, which will eventually promote healthy and effective development.

It is worth noting that this approach proposes two methods of support: gratis financial support and discount loans. Gratis financial support means that funding will come from a range of sources including the government, businesses and even individuals. A discount loan is really another kind of government investment; it makes better use of bank loans, expands the overall scale of investment and lowers investment costs. Discount loans are applicable in a broader scope and its function should not be underestimated.

World's largest solar power station to be built in NW. China city

(Xinhua, 2006-11-21)

http://english.people.com.cn/200611/21/eng20061121_323677.html

Environment

China to contribute to world's sustainable development: vice premier

(Xinhua, 2006-11-11)

China will try to resolve its current outstanding environmental problems and realize its environmental goals as set out in the 11th Five-Year Plan period (2006-2010), says Vice-Premier Zeng Peiyan. Zeng told the China Council for International Cooperation on Environment and Development (CCICED) that China also hopes to contribute to the world's sustainable development.

By 2010, China plans to improve the environment in major areas and cities. Initially it will attempt to curb the deterioration of the environment by reducing the amount of energy required to produce a unit GDP by 20 percent and total discharge of CO₂ by 10 percent. It will maintain 120 million hectares of cultivated land; and increase forest coverage to 20 percent, up from the current 18.2 percent, said Zeng. Since its founding 15 years ago the CCICED, has contributed to China's undertakings on sustainable development, said Zeng. He urged the organization to study environmental problems and give more and better proposals on the issue.

The meeting was chaired by Zhou Shengxian, minister of the State Environmental Protection Administration, and attended by officials and representatives from Chinese and foreign governments, the United Nations and other international bodies, and some domestic and international observers and scholars. Cheng Siwei, vice chairman of the Standing Committee of the National People's Congress (NPC) was also in attendance. The CCICED was established in 1992, by the Chinese government, foreign governments, and international organizations.

Pollution on the rise as economy surges

(China Daily, 2006-11-22)

BEIJING - The amount of pollution discharged into China's rivers and lakes has increased this year despite government efforts to improve factories' environmental practices.



Sunset of a Beijing highway. The amount of pollution discharged into China's rivers and lakes has increased this year despite government efforts to improve factories' environmental practices. [AFP]

China produced more than 12 billion tons of industrial waste-water in the first half of 2006, up 2.4 percent from the same period last year, a State Environment Protection Administration report said. A major index of water pollution called the chemical oxygen demand increased by 3.7 percent in the first six months, while emissions of sulphur dioxide rose 4.2 percent, the report said. Acid rain, which affects almost one-third of the nation, also remained unchecked, it said.

The environment watchdog attributed the increased volume of pollution to the country's booming industries, as the economy steamed ahead by 10.9 percent in the first half of the year. It said food-processing, paper-making and chemical plants accounted for more than 80 percent of the increase in the chemical oxygen demand level.

The watchdog said only 30 to 40 percent of public industrial projects had undergone environmental evaluations before they went ahead, and criticized local governments for not implementing strict environment protection policies.

"The quality of the country's overall environment remained unchanged or deteriorated in some areas," said the report.

The country has already failed to meet some of the key environmental objectives in its latest five-year national economic and social plan, it said. In September, the state environment watchdog said pollution had inflicted economic losses of 511.8 billion yuan (65.8 billion dollars) on the country in 2004, or three percent of China's GDP that year.

HK losing expats to S'pore as smog turns many away

(Business Times, 2006-11-26)

HONG KONG's worsening air pollution and sparse international school space is prompting more and more executives to relocate to Singapore.

Headhunters and recruitment agencies are finding it increasingly difficult to attract candidates to the smog-heavy city, as concerns over respiratory illnesses and general quality-of-life issues kick in.

The Hong Kong government is being criticised over its record on environmental issues, with green groups and business chambers increasingly claiming that its anti-pollution measures have been ineffective. Recruiters are finding that candidates are either backtracking on appointments at the last moment in preference for Singapore or are simply relocating their families there as a result of worries about the environment in Hong Kong.

'It's a real problem that's not being addressed by the government,' says Philip Eisenbeiss, a headhunter at Executive Access. 'We're getting a significant number of candidates from overseas - they are getting top offers here, and come over and the spouse kills the deal. The pollution is a huge issue,' he explains.

Singapore is an obvious alternative because of its location in the region, international schools and lower rents. This despite the fact that for a couple of months each year the republic, along with other countries in the region, is subjected to a haze resulting from forest fires in neighbouring Indonesia.



'I'm losing people in my own office - people can't take it any more, their kids are sick all the time,' Mr Eisenbeiss says. Brenda Wilson, a senior director with Mercer Human Resource Consulting in Hong Kong, agrees, saying: 'Many of them (executives) are selecting Singapore. When they have a choice and after speaking to a variety of people, Singapore is an attractive choice.'

Green groups have also noticed a migration. 'We do hear that (executives moving to Singapore),' says Annelise Connell, vice-chair of the group called Clear the Air. 'We know people who have gone.' In one of the most damning indictments of Hong Kong's worsening pollution, one of the city's top marathon runners, Mark Williams, uprooted his family in July and moved to New Zealand, saying the move was prompted by concerns about air quality.

The departure of Mr Williams came just months after the annual Standard Chartered marathon turned into a public relations disaster for the government, with two people dying and scores becoming ill after pollution levels hit nearly 150. Quality of life surveys are also becoming an embarrassment for the government, with the city slipping quite dramatically in rankings such as the ECA International survey this year. The human resources consultancy found that Hong Kong had slumped to 32nd place as the best of 257 locations to live in worldwide in 2006, compared to 20th in 2005.

As Michael Raytek of recruiter Hunt Partners explains, pollution is increasingly becoming part of a family's decision-making process when it comes to job offers. 'These are people who travel to Hong Kong and know about it (the pollution), but haven't lived here,' he stresses.

He cites a recent case where two job offers fell through because the firm could not entice candidates away from Singapore to Hong Kong. 'We have personally felt the difficulties in terms of moving expatriates out of Singapore into Hong Kong,' he says. 'That is something that's coming up more and more often. The perception of pollution plays a role.'

One of the candidates had two children, and the other had three. School places are tight in Hong Kong for international students, but Mr Raytek says: 'We never even got to that point, though it would have been the next hurdle.' Much of Hong Kong's pollution comes from the neighbouring province of Guangdong and the industrial hinterland of the Pearl River Delta. However, up to 40 per cent of the city's street level pollution is attributed to vehicle emissions and power companies' environmental shortcomings.

Novartis sets up research centre in Shanghai

(Swiss info, 2006-11-06)

http://www.swissinfo.org/eng/business/detail/Novartis_sets_up_research_centre_in_Shanghai.html?siteSect=161&sid=7228688

China's first hydrogen refueling station goes into operation

(Xinhua, 2006-11-09)

http://english.people.com.cn/200611/09/eng20061109_319882.html

Pollution Increases in First Half of 2006

(China Daily, 2006-11-22)

<http://www.china.org.cn/english/environment/189792.htm>

Health

HIV/AIDS cases in China up by 30%

(People Daily, 2006-11-22)

The reported number of HIV/AIDS cases in China has grown by nearly 30 per cent this year compared with last year, according to figures released yesterday by the Ministry of Health. Health officials attributed many of the new cases to better reporting of existing cases, though they also warned that the virus seemed to be spreading from high-risk groups to the general public.



The reported number of cases has grown to 183,733 this year, up from 144,089 at the end of last year, according to statistics announced by the Ministry of Health yesterday. Of the reported cases, 40,667 have developed into AIDS, statistics showed. Experts from the United Nations and the Ministry of Health estimate that some 650,000 people in China carried HIV at the end of December 2005, suggesting that many people were unaware that they carry the virus.

As of October 31, 12,464 people have died in China as a result of illnesses associated with the HIV virus, Hao Yang, deputy director of the Ministry of Health's Disease Control Bureau, said yesterday. Hao added that virus appeared to be spreading from so-called high-risk groups to the general public.

Drug abuse accounted for 37 per cent of the cases reported in the first 10 months of the year, while unsafe sexual contact had caused 28 per cent, Hao noted, adding that these two activities had caused most of the infections. Before 2002, only 10 per cent of all infections were caused by sexual contact. Ministry officials who have been observing monitoring sites around the country have found that the percentage of sex workers infected by HIV/AIDS had grown to 1 per cent last year, compared with only 0.02 per cent in 1996.

HIV testing has found that the infection rate among pregnant women in provinces that are experiencing serious epidemics, such as Southwest China's Yunnan Province, is about 1 per cent. Such statistics are the clearest evidence that the virus is spreading from high-risk groups to the general public as a result of unsafe sexual contact and drug abuse.

Hao said these two causes posed a great danger because effective measures to dissuade unsafe behaviour are not yet in place. For example, according to an investigation by public health workers, only 38 per cent of prostitutes in certain areas insisted on using condoms during intercourse. And about half of the drug abusers surveyed still share syringes while taking intravenous drugs, Hao said.

Sexual activity among gay men is also an important source of new HIV/AIDS infections. Statistics show that in some areas the infection rate among gay men is between 1 and 4 per cent. Government officials have launched a concerted effort to prevent and control HIV/AIDS in recent years. It has greatly enhanced HIV testing and monitoring among both high-risk groups and the general public, which has helped public health workers identify more cases.

For example, the provincial government of Central China's Henan launched a wide-ranging investigation of people who sold blood in 1990s and found more than 30,000 carriers, the majority of which had been infected by contaminated blood. Farmers from many regions, especially in Henan, Shanxi and Anhui, sold blood in the 1990s to earn extra money. Among the total reported cases this year, 5.1 per cent were caused by people selling blood illegally or receiving infected blood from hospitals.

The central government also offers free HIV testing, free anti-virus treatment and free education for the children of people with HIV/AIDS. Some 28,757 people in 31 provinces and regions received free anti-viral treatment. By the end of this year, the number will reach to 30,000.

Wild fruit poisons 43 children in S. China county

(Xinhua, 2006-11-21)

http://www.chinadaily.com.cn/china/2006-11/21/content_739257.htm