



The Auto Project on Energy and Climate Change  
汽车能源与气候变化—中国项目

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## General Energy Issues

### Energy plan: Reliance on coal and oil to be eased

April 11 (China Daily) -- China aims to reduce reliance on coal and oil despite soaring demand for the commodities, the country's top economic planner has revealed in an energy sector plan for the five years up to 2010.

The change was charted because of the high environmental and human cost of coal mining as well as soaring oil prices, the National Development and Reform Commission (NDRC) said in a report published yesterday.

In 2010, the targeted ratio of coal in total energy consumption is 66.1 per cent, down from 69.1 percent in 2005; and oil, 20.5 percent, down from 21 percent.

The proportion of natural gas, however, will increase from 2.8 percent to 5.3 per cent. The share of nuclear and hydro power as well as other forms of renewable energy will rise from 7.1 percent to 8.1 per cent.

Soaring demand for coal has resulted in loose safety controls and illegal mining, leading to many fatal accidents in recent years. Coal mining has also contaminated water resources in many places.

"Coal's dominant role in our energy consumption structure has caused many environmental and social problems and has brought about a grave challenge for sustained development," the plan said.

At the same time, the country has increasingly felt the pinch of surging international oil prices

Zhou Dadi, director of the NDRC's energy research institute, said coal and oil consumption should be contained because their emissions are believed to be a major cause of global warming.

In addition to reducing dependence on coal and oil, China has also announced a conservation

plan to reduce energy consumption per unit of GDP by 20 percent during the five years.

The energy pricing system should also be reformed to encourage conservation, economists say, arguing that prices are low. But policy makers have been cautious about raising prices for fears of inflation and a high financial burden on low-income earners.

The latest plan said annual growth of energy production will be 3.5 percent during 2006-10, which will raise total energy output to 2.45 billion tons of coal equivalent in 2010.

Consumption is expected to increase by an annual rate of 4 percent during the same period, which will amount to 2.7 billion tons of coal equivalent.

The report also said that China aims to raise production of crude oil to 193 million tons in 2010 from 184 million tons last year.

The output of natural gas in 2010 is projected at 92 billion cubic meters, up from 59 billion in 2006.

### Need for an energy law overseer, says drafter

April 28 (China Daily) -- It is possible for China to set up an independent energy administrative agency, which is authoritative and efficient enough to enact the proposed Energy Law, a key drafter said.

"It is possible for the country's top decision-makers to set up an energy administration. I regard such an agency as necessary to execute the future Energy Law. However, it is still uncertain what the final outcome will be," Ye Rongsi, a drafter of the Energy Law, said at the International Symposium on China's Energy Law on Friday.

The seminar was held to get international input on the drafting of China's Energy Law. The law will overarch existing energy laws and regulations. It will also address particular issues covered by existing energy rules, Ye said.

Ma Kai, minister of the National Development and Reform Commission, China's top economic planner, said it was absolutely necessary for China to come up with an overriding Energy Law, because existing laws and regulations only address individual industrial problems.

Furthermore, they were inadequate in matters relating to secure energy supply and sustainable energy development.

Ye in agreeing with Ma, said the proposed Energy Law, while laying the foundation and serving as the overarching legal framework, should also be effective and efficient to "crack specific hard nuts".

"Although the planned energy law is expected to have fundamental functions, it should also be applicable and maneuverable, embodying some key targets and standards for the industry to follow," Ye said.

"In the drafting of the law, we should quantify the specific goals wherever possible."

Ye admitted that there is debate on whether specific targets and benchmarks should be enshrined in the planned law, because many market players may fall short of the targets and standards, thereby undermining the law's authority.

Currently, there are four energy laws in China on coal, electricity, energy conservation and renewable energy. There are no laws yet governing petroleum, natural gas and nuclear energy.

Some sections of the existing laws are out of date and crucial issues, such as strategic crude reserves, are not covered, Zhang Qiong, deputy director of the Department of Legislation Affairs Office of the State Council, said.

According to Zhang, amendments to current energy laws and regulations are being carried out along with the drafting of the Energy Law to make the country's energy industry better governed.

### **Official: China will not affect world energy demand**

April 25 (Xinhua) -- China's increasing energy demand will not affect world energy security, said visiting top Chinese political advisor Jia Qinglin on Tuesday.

China has all along relied on itself in meeting its energy need since it has abundant coal resources and great potential in oil and natural gas exploration and development, Jia said.

"Over 90 percent of China's energy demand is met through domestic supply," he said, adding that though China's consumption of oil and gas is growing, its per capita consumption and per capita import are low.

China's per capita import of oil and gas is 100 kg, while the world average is 400 kg, Jia said. China has strengthened energy cooperation with Africa in recent years, which has become a new focus in China-Africa business ties.

"This is an example of China and Africa pursuing common development by drawing on their comparative strengths. China needs overseas energy supply to improve the well-being of its people, while Africa needs to translate its energy resources into competitive edges to promote economic development," Jia, chairman of the National Committee of the Chinese People's Political Consultative Conference (CPPCC), told the opening ceremony of the China-Kenya Economic and Commercial Cooperation Forum in Nairobi.

He said stronger China-Africa energy cooperation is of great significance to promoting global development of energy resources and safeguarding global energy security.

"Such cooperation is normal business practice on the basis of equality, mutual benefit and the rules of market economy. It is totally different from the plunder committed by colonialists in Africa," Jia said.

Kenya is the final leg of Jia's official good-will visit to four African countries, which has already taken him to Tunisia, Ghana and Zimbabwe. He arrived here Monday.

### **Macro control to focus on energy saving**

April 28 (Xinhua) -- Chinese Premier Wen Jiabao said on Friday that the current macro-control policy must focus on energy conservation and emission reduction in order to develop the economy while protecting the environment.

"The challenge of reducing energy consumption and greenhouse gas emissions has proved arduous as China's economy grew 11.1 percent in the first quarter but power consumption surged 14.9 percent," said Wen.

"This is a crucial year for China in its efforts to meet the energy saving and emission reduction target set for the 2006-10 period," said Wen.

The Chinese government has set a target of reducing energy consumption for every 10,000 yuan (1,298 U.S. dollars) of GDP by 20 percent by 2010, while pollutant discharge should drop by 10 percent.

But energy consumption fell only 1.23 percent last year, well short of the annual goal of four percent.

"To reverse the situation, local governments must no longer regard the target as a flexible one, but an imperative", said Cai Zhizhou, a researcher at the China Center for National Accounting and Economic Growth, Beijing University.

"To curb excessive growth of the sectors that consume too much energy and cause serious pollution, China must tighten land use and credit supply and set stricter market access and environmental standards for new projects," said Wen.

"Restrictions should be imposed on exports in these sectors as soon as possible," he added.

"Outmoded production methods must be eliminated at a faster pace and how this policy is implemented by local governments and enterprises will be open to the public and subject to social supervision," he said.

"The ten nationwide energy saving programs, such as developing oil alternatives, upgrading coal-fired boilers and saving energy indoors, will save China 240 million tons of coal equivalent during the 2006-10 period, including 50 million tons this year," said Wen.

The Chinese government will advance reforms in the pricing of natural gas, water and other resources, raise the tax levied on pollutant discharge, establish a "polluter pays" system and severely punish those who violate the environmental protection laws, said Wen.

"Without faster restructuring and an efficient method of economic growth, China's natural resources and the environment will not be able to sustain its economic development," said Wen.

"We have no choice but to develop in an economical, clean and safe way," he said.

### **Growth calls for energy efficiency**

April 27 (China Daily) -- Rapid industrial growth calls for strengthened efforts to raise energy efficiency and reduce pollution, said officials from the National Development and Reform Commission (NDRC).

After four consecutive years of above 16 percent growth, the total value added to large industrial enterprises was up 18.3 percent year-on-year in the first quarter, the fastest in a decade.

"The overall industrial growth is sound," said Zhu Hongren, a NDRC official in charge of economic growth, referring to both soaring profits and progress in balancing regional development.

Industrial enterprises' profits jumped 43.8 percent in the first two months, 22 percentage points higher than that for the same period last year.

The country's central and western regions witnessed more investments and production growth than the eastern areas in the first three months. Their share of the national fixed-asset investment increased by 1.6 percentage points and 0.2 percentage points respectively.

"However, further acceleration in industrial growth will make it more difficult to maintain stable economic growth," Zhu told a press conference yesterday. "Growth in some energy-consuming industries has been too rapid."

Six energy-consuming sectors - steel, nonferrous metals, chemicals, power, petroleum processing and coking, and construction materials - produced about one-third of the country's total industrial added value. But they together accounted for 64 percent of electricity consumption and 70 percent of energy consumption.

In the first quarter, the added value of the six sectors grew 20.6 percent, 2.3 percentage points higher than the overall industrial growth. Their electricity consumption growth also went up 18.2 percent, 1.4 percent higher than the average for all industrial enterprises.

"If the trend cannot be checked, it will inevitably affect the country's efforts to meet its goal on energy saving and pollution reduction," Zhu said.

China has set a goal in its 11th five-year plan to slice its energy consumption per unit of domestic gross product (GDP) by 20 percent and the discharge of sulphur dioxide (SO<sub>2</sub>) and chemical oxygen demand (COD) by 10 percent between 2006 and 2010.

"One focus of this year's macroeconomic control is to rein in excess growth of energy-consuming products," said Jia Yinsong, another NDRC official in charge of economic growth.

The government will take concrete measures to strictly control the investment size and exports of energy-consuming, pollution-heavy and resource-intensive products, according to Jia.

The government has also decided to boost the tertiary industry to facilitate the change of the country's growth pattern, said Xia Nong, a NDRC official in charge of industrial policies.

It is estimated that the service sector's energy consumption per unit added value is only one-fifth of that of the industrial sector. That means a larger share of the service sector in the national

economy will lead to lower energy consumption per unit GDP, according to Xia.

Yet, the share of the service sector's added value in GDP has declined from 40.7 percent in 2004 to 39.9 percent in 2005 and 39.5 percent last year.

"It is pressing and demanding task to accelerate development of the service sector," Xia said.

### **Energy: Oil giant eyes renewable energy**

April 23 (Shanghai Daily) -- China National Offshore Oil Corp said it will expand its major businesses to include renewable energy and infrastructure construction within 10 years.

"We want to develop wind power, biofuels and energy infrastructure construction within the next five to 10 years as our major businesses beyond oil and gas," Fu Chengyu, president of the Beijing-based company, said at the annual Boao Forum in Hainan Province yesterday.

China National Offshore, parent of Hong Kong-listed CNOOC Ltd, is expanding to tap the nation's rising demand for energy and infrastructure. China, the world's second-biggest greenhouse gas emitter, plans to spend 1.5 trillion yuan (US\$194 billion) by 2020 to expand the use of renewable energy sources such as solar, wind and biomass.

### **Energy rating labels proposed**

April 5 (China Daily) -- The Environmental Protection Department has proposed the introduction of a classification system for refrigerators, air conditioners and low-energy light bulbs in a bid to save energy and cut down on carbon dioxide emissions.

The proposal, which was published yesterday in the government gazette, calls for each product to carry a label indicating its energy-efficiency rating, from Class 1 to Class 5.

For example, a Class 1 air conditioner would be 29 percent more energy-efficient than an equivalent model with a Class 5 rating. Similarly, a Class 1 refrigerator would be 49 percent more efficient than a Class 5, and a Class 1 energy-

saving light bulb 15 percent more efficient than a Class 3.

The proposal, which will be presented to the Legislative Council on April 18, also states that manufacturers found guilty of providing false information would face a fine of up to HK\$100,000 and possible imprisonment.

If it wins approval from the Legislative Council, the proposal will be implemented early next year, although manufacturers would be granted an 18-month grace period.

According to figures from the Environmental Protection Department, energy-saving light bulbs, refrigerators and air conditioners accounted for 6.7 billion units of electricity in 2004, some 70 percent of the country's total domestic energy consumption.

It has been estimated that 150 million units of electricity per year could be saved by implementing the proposal. The electricity tariff would be reduced by HK\$135 million a year, while carbon dioxide emission would be cut by 105,000 tons annually.

The department also suggested that a family of four could cut their annual electricity bill by as much as HK\$2,150 by replacing 10 Class 5 appliances with the same number of Class 1 equivalents.

Environmentalists have also given their support to the proposal, saying it would help protect the environment.

Friends of the Earth (Hong Kong) director Edwin Lau said it would help consumers to make informed choices.

"The labels will give customers clear information on whether or not an electrical appliance is energy-efficient and environmentally friendly," he said.

He also urged the department to conduct random checks to ensure that the information provided by manufacturers was accurate and said that more effort should be made to encourage the public to use electricity

judiciously, such as switching off appliances when they are not in use.

Man Chi-sum, the CEO of Green Power, said the labels would also help protect consumers' rights.

"Consumers should know whether the electrical appliances they buy are wasting energy," he said.

Man said the government and the two power companies in Hong Kong should reward customers for consuming less electricity, and provide financial incentives to households to buy energy-efficient appliances.

## Automobile and Transportation

### Beijing uses environment-friendly vehicles to cut pollution

April 19 (Xinhua) -- Beijing transport authorities are to phase out 2,500 buses which fail to meet emissions standards and buy 2,810 environment-friendly vehicles this year.

Eighty percent, or 2,350, of the public transport vehicles to be purchased by the city this year will be buses with diesel engines that have achieved the European IV standard for emissions, and 160 will be trolleybuses.

The city would buy another 300 buses which run on compressed natural gas, bringing their total number to 4,000, said Feng Xingfu, deputy general manager of Beijing Public Transport Holdings Ltd.

"Compared with the European III standard, European IV has cut particle emissions by a further 80 percent. European IV buses will have more engine power and improved fuel efficiency," said Feng.

"Beijing is in fact keeping in pace with European countries," he added.

Vehicle emissions are a major source of pollution in the Chinese capital. The municipal government has announced it will renew public

transport vehicles that fail environment standards before the 2008 Olympic Games.

The public transport company has upgraded 11,000 buses since 2004, or 60 percent of the total. The number of renewed buses is expected to reach 20,000.

The design of the new vehicles will be more passenger-oriented. For example, the buses will be lower and more accessible to the elderly, and handrails will be more convenient for passengers, Feng said.

### **Chery forecasts 40% rise in exports**

April 20 (AP) -- China's biggest domestic automaker, Chery Automobile Co., said Friday it expects its foreign sales to rise by 40 percent this year to 70,000 vehicles as the company tries to establish itself in the global car market.

Chery is targeting developing countries but wants to start exporting to the United States, Europe and other developed markets, said Qin Lihong, a vice president of its sales arm.

"Right now, we have that vision, but there is no concrete plan," Qin said.

Chery Chairman Yin Tongyao unveiled two new sedans meant for export and other vehicles at a ceremony ahead of the Shanghai Auto Show, which opens Sunday. Yin said the U.S. market was "attractive" but did not say when Chery might try to start selling there.

Chery, based in the eastern Chinese city of Wuhu, is the biggest of a group of up-and-coming Chinese automakers that are trying to expand into overseas markets. Others include Ge Automobile Group Ltd. and Shanghai Automotive Industries Ltd.

China's automakers exported some 325,000 vehicles last year, about 80 percent of them low-priced trucks and buses bound for developing markets in Asia, Africa and Latin America, the government says.

Many are eager to break into the U.S. market, the world's largest, but industry analysts say

they will have trouble meeting American safety and environmental standards.

Some have improved their skills by forming partnerships with U.S., European or Japanese automakers.

Chery and DaimlerChrysler AG announced an agreement last year for the Chinese company to manufacture small vehicles for sale worldwide under the Chrysler, Dodge or Jeep brand names.

Chery's lineup under its own brand name ranges from the two-door A1 roadster to the Tiggo SUV.

The small A3 sedan and midsize A6 unveiled Friday are due to go on sale this year, the company said.

This year's sales target is 390,000 vehicles, with 70,000 exported, Qin said. But he said some Chery managers are forecasting sales of up to 500,000 vehicles, with as many as 100,000 exported.

Half of Chery's exports last year went to Russia and other parts of the former Soviet Union, with Russian sales rising 600 percent to about 6,000 vehicles, Qin said. Southeast Asia, Iran and other Middle Eastern countries also are key markets.

Chery was displaying a hybrid gasoline-electric version of its A5 sedan that Qin said would be ready for sale in two to three years.

The company also was showing an electric car powered by a hydrogen fuel cell and others that can run on natural gas, ethanol, bio-diesel and other alternative fuels, but Qin said there were no immediate plans to market them.

Cleaner vehicles are a key theme at the Shanghai show, where many of the international and Chinese automakers are showing electric and other alternative cars.

Referring to Chery's fuel cell sedan, Qin said, "We are showing this car to say to everybody, Chery cares about the environment."

### **Chinese automakers showcase eco-cars**

April 23 (AP) -- One experimental clean-energy car runs on natural gas. Another uses ethanol distilled from corn. A third has a zero-emissions electric motor powered by a hydrogen fuel cell.

These alternative vehicles were created not by a global automaker but by China's small but ambitious car companies, which displayed them Sunday alongside gasoline-powered sedans and sport utility vehicles at the start of the Shanghai Auto Show.

At a time when they are still trying to establish themselves in international markets, Chinese automakers are already investing in such avant-garde research in a bid to win a foothold in the next generation of technology.

"This is the tide of the industry. If you don't go with the tide, the industry will pass you by," said Qin Lihong, a vice president of China's biggest domestic automaker, Chery Auto Co., in an interview ahead of the show's opening.

China's communist leaders are encouraging the development as part of efforts to cut pollution and rising dependence on imported oil and to make this country a creator of profitable technologies.

Chinese manufacturers are getting help from foreign automakers in joint ventures and from research alliances with Chinese universities and government laboratories.

Beijing has made cleaner cars a policy priority, targeting the field as one of 11 priority areas in a 15-year technology development plan issued in February 2006. It promised grants and tax breaks to support industry efforts.

The campaign embodies one of Beijing's strategies in technology development: Pick new areas with no entrenched competitors so China can make breakthroughs without huge costs.

While foreign automakers have a lead in conventional technology, "in new energy we're starting from almost the same line," said Chen Hong, the president of Shanghai Automotive Industries Corp.

"So we believe we can catch up with other auto companies and make great progress in developing new energy vehicles," Chen said.

China's leaders are pressing its auto, steel, manufacturing and other industries to improve energy efficiency and cut pollution.

They see China's rising reliance on imported oil as a strategic weakness, especially since much of it comes from the politically volatile Middle East and crosses seas beyond Beijing's control.

China already is the world's No. 2 oil consumer after the United States and saw imports soar by 14.5 percent in 2006, driven by economic growth that has topped 10 percent for the past four years.

A boom in car sales has added to smog shrouding China's major cities, which are among the world's dirtiest. Vehicle sales jumped 25.1 percent last year to 7.2 million units, including 3.8 million passenger cars.

At the Shanghai show, both SAIC and Chery displayed experimental fuel-cell sedans, while they and a third Chinese automaker, Chang'an Automobile Group Co., also showed gasoline-electric hybrids.

SAIC said it will start selling its hybrid next year, while Qin said Chery's would go on the market in two to three years.

"The hybrid will be our focus," SAIC chairman Hu Maoyan said at a news conference. "The fuel cell will be our direction."

SAIC has spent 100 million yuan (\$12 million) on fuel cell research, according to state media.

Chery had the widest array of alternative vehicles on display at the Shanghai show. They included models outfitted to run on bio-diesel made from vegetable oil or a "flexible fuel" choice of compressed natural gas or ethanol.

Foreign automakers also are playing a role in China's research.

General Motors Corp. has a joint-venture technology center with SAIC in Shanghai and

operates three experimental fuel cell buses in the city. DaimlerChrysler AG has three of its own fuel cell buses running regular routes in Beijing in a research project with the technology ministry.

Foreign automakers including GM, Ford Motor Co., BMW AG and Honda Motor Co. displayed their own hybrids and experimental fuel cell cars at the Shanghai show.

Company officials said hydrogen fuel cells, which produce power with no exhaust, are the cleanest option. But they say it could be a decade or more before such technology is commercially feasible, due partly to the need to create a network of hydrogen filling stations.

Chinese authorities also are looking at other possible fuels such as natural gas and methane extracted from coal, said Mei-Wei Cheng, the president of Ford's China operations.

"This is not an easy decision, because every option has pros and cons," Cheng said. "The government is trying to find a solution as quickly as possible, but this is a difficult problem."

### **Hot auto market creates native competition for detroit**

April 24 (AP) -- With models like the Hover and Roewe, Chinese-brand cars aren't household names in the United States and other big markets - not yet, at least.

But Chinese upstart auto makers with equally obscure names such as Chery, Geely and SAIC are challenging industry leaders such as General Motors, Volkswagen and Toyota in the fast-growing China market. They're making inroads throughout the developing world with an eye toward eventually entering big Western markets such as the United States.

China's homegrown auto makers vie for attention with global giants such as GM at this week's Shanghai Auto Show, a biennial event that will showcase China's phenomenal rise to become the world's No. 2 vehicle market.

The tenfold jump in China passenger car sales in the past decade has proved a big boost to

General Motors Corp., which has become the market leader in China even as it loses market share at home. GM's sales in China last year rose 32 percent to 876,747 vehicles, and Ford Motor Co.'s jumped 87 percent to 166,722 units.

"Detroit is so cold, but here it's so, so hot," says Yale Zhang, a Shanghai-based auto analyst with CSM Worldwide.

Demand from newly affluent drivers in China lifted passenger car sales by 37 percent last year to 3.8 million units. China's vehicle market, including trucks and buses, grew to 7.2 million last year, putting it second behind the United States with 16.5 million autos sold but ahead of Japan, with 5.7 million.

Last year's top-selling model was the Jetta, made by FAW-Volkswagen, one of Volkswagen AG's joint ventures. Even Toyota, a relative latecomer to China, is gaining ground, with a 66 percent jump in first-quarter sales.

China has required foreign auto makers to partner with local companies, and the boom has fattened profits for nearly all, Zhang said: "They have money and they have room to maneuver. It's easier now."

Domestic manufacturers are also getting a lift. Sales of small cars have surged after the government phased out urban restrictions last year on sales and use of minicars such as Chery's popular QQ and rival Changan Automobile Group's CV6, a similarly egg-shaped minicar with a 1.3 liter engine.

Chery, Changan and others are also ramping up exports, especially to developing countries where low prices count most.

China's auto makers exported about 325,000 vehicles last year, about 80 percent of them low-priced trucks and buses bound for markets in Asia, Africa, the Middle East and Latin America.

Chery, based in Wuhu, a city in eastern China's Anhui province, has led the export push for passenger cars, selling 50,000 units overseas last year.

The company assembles vehicles in facilities run with local partners in Iran, Malaysia, Russia, Ukraine, Brazil and Egypt and recently announced it has teamed up with Bognor SA to make bulletproof sedans in the Uruguayan capital of Montevideo.

Like many other Chinese auto makers, Chery has its sights set on bigger targets.

At the Shanghai show, it will show an updated version of the QQ, dubbed the "Chery A1," made in a new partnership with DaimlerChrysler AG. The Chinese side says it expects the alliance eventually to build compact cars for export to North America and Europe.

Little-known overseas, SUV maker Hunan Changfeng Motors Co. put on a display at the North American International Auto Show in Detroit in January, saying it hopes to begin exports to the United States within two years.

Rival Great Wall has gained a quirky reputation for its Hover model after shipping 500 of the SUVs to Italy last summer.

Executives at GM, Toyota Motor Corp., and most other big foreign car companies say China may eventually serve as an export base, but for now their big challenge is meeting local demand.

So far, despite limited exports to Australia and Europe, most of the Chinese auto makers' grand plans for selling to Western markets have not materialized.

Chery's earlier plans to sell vehicles in the United States with American entrepreneur Malcolm Bricklin fell through.

Nanjing Automobile Co. recently launched production of MG model sports car after buying bankrupt British auto maker MG Rover in 2005, seeking a foothold in Europe. Its plans to build an auto plant in Ardmore, Okla., appear to have foundered amid a cash crunch.

"We won't necessarily be building it," company President Yu Jianwei said in a recent interview with National Public Radio.

Even in developing markets, it hasn't been all smooth sailing. Geely Group Ltd., China's largest privately owned auto maker, saw its plans for auto assembly plants in Malaysia rebuffed last year.

China's domestic auto makers are not ready to meet safety and environmental standards in the United States and Europe, let alone to finance the service and sales networks they'd need to enter those already crowded markets, analysts say.

"It's still too early to seriously consider China as a competitive rival to Japan and U.S. in the auto sector," said Zhang Xin, an industry analyst at Guotai Jun'an Securities' Beijing office. "They lack the capability to reach those ambitions," he said.

Chinese domestic auto makers still lack the scale and efficiency needed to gain a real competitive edge, says John Bonnell, an analyst with Westlake Village, Calif.-based automotive research firm J.D. Power and Associates. He does believe that some have the government backing and resources to eventually succeed, such as GM- and VW-partner Shanghai Automotive Industry Corp., or SAIC, maker of the Rover-inspired Roewe.

One example of their relative readiness was evident at the Detroit show, where the electronics in many of the made-in-China cars on display consisted of pictures of DVD players, navigation systems and stereos - taped to the dashboards.

### **BMW woos support for hydrogen**

April 24 (Shanghai Daily) -- BMW AG says it is talking with the Chinese government about hydrogen-powered vehicles, trying to win Chinese support to promote hydrogen as a mainstream new energy solution.

"We worked closely with the government, helping to form a legal framework for hydrogen vehicles, including registration and infrastructure buildup," said Karl-Heinz Schmid, president of BMW China Automotive Trading Ltd.

Yesterday the world's biggest luxury car maker unveiled its BMW Hydrogen 7 sedan in China,

with an internal combustion engine capable of running on either liquid hydrogen or gasoline.

With a 74-liter petrol tank and a fuel tank containing eight kilograms of liquid hydrogen, the BMW Hydrogen 7 can run 700 kilometers on one tank, including at least 200 kilometers powered by hydrogen. Top speed could reach 230 kilometers per hour.

The Munich-based car maker picked Shanghai and Beijing for the car's launch. China is an important stop for BMW Hydrogen 7's world tour, as the nation encourages new energy sources such as bio petroleum, hydrogen and electricity to reduce reliance on crude oil.

More than 3,000 hydrogen passenger cars and 100 buses will roll on Beijing streets during the 2008 Beijing Olympics. Shanghai also plans to use 1,000 hydrogen-fueled taxis or buses and build 20 hydrogen refueling stations by 2010, when the Shanghai World Expo will be held.

UK industrial gas maker BOC Group Plc announced plans to partner with Tongji University and Shell to build Shanghai's first hydrogen refueling station in 2005. Another one is also under construction in Beijing.

"We really think China will be a pacemaker in clean energy," said Bernd Hassenjuergen, BMW's general manager of new energy strategy China.

Although hydrogen-powered vehicles still face stumbling blocks such as fuel storage, high cost and the lack of refueling stations, BMW has so far rolled out 100 Hydrogen 7 cars, a step closer to commercialization.

### **World leading auto makers eye more than sales in China**

April 23 (Xinhua) -- Many multinational automotive companies no longer see China as a sales market only, but are making it an important manufacturing, outsourcing, exporting and regional research base.

Such a move is highlighted at the Shanghai Automobile and Technology Exhibition, which opened on Sunday to public visitors.

Rick Wagoner, chief executive officer of the US-based General Motors (GM), said in Shanghai the company would double its production capacity in China by 2010.

Business insiders said that more and more international auto makers would become inclined to base their production in China, attracted by the country's low labor cost and workers with sophisticated skills.

Ford China chairman Cheng Meiwei, also vice president of auto manufacturer Ford, told Xinhua at the exhibition that China was becoming the most important outsourcing center globally for Ford, and automotive spare parts made in China were assembled in Ford-brand vehicles all over the world.

The GM sedans under the brandname of Chevrolet, produced and sold in the US, were also made with many parts from China, just like Ford did.

Statistics from the country's customs show that China exported 11.5 billion US dollars worth of automotive spare parts, accessories and auto bodies in 2006, outpacing the imports by four billion US dollars to report its first-ever surplus in this trade sector.

Wei Jianguo, vice minister of commerce, also saw great potential in the country's export of vehicles and automotive spare parts, forecasting more international auto companies would build China into an important outsourcing base for them.

Japan-based Honda already established a sedan production center in the country's manufacturing hub of Guangzhou to replace its factory back in Japan to produce autos that were for sales in Europe.

Yin Tongyao, general manager of China's domestic auto maker Chery, told Xinhua many multinationals had extended hopes to manufacture their brand-name vehicles in Chery factories for sales back in their home countries.

A Buick-brand concept car of GM debuted on the Shanghai auto show actually involved staff from the United States and China with core

ideas from a joint technology center organized by GM and its joint venture Shanghai GM, a token of China's growing presence in the research work of multinational auto companies.

Major names like Toyota, Honda and Volkswagen are planning to switch more research and development projects into China, and some preparing to establish a research center in China.

Foreign brands took a 75 percent share of the Chinese market for sedan cars last year, with the top three best sellers being Shanghai GM, Shanghai Volkswagen and FAW Volkswagen, all of which are Sino-foreign joint ventures that mainly produce cars with foreign brands.

### **Report: China to be Asia Pacific's largest auto maker by 2010**

April 5 (Agencies) -- China is expected to overtake Japan to become the Asia Pacific's largest auto maker by 2010 with an annual output of 11 million light vehicles, an international research firm said Thursday, according to a report released by AFP.

"Japanese production is reducing largely because production is being shifted to the Chinese market," AFP quoted Benjamin Asher, a Beijing-based business manager with JD Power-Automotive Resources Asia as telling.

Japan manufactured 10.8 million light vehicles in 2006, but growth for 2007 is expected to decline 1.7 percent to 10.6 million units and to 10 million by 2010, said a quarterly forecast report released by the company this week.

Light vehicle refers to any motor vehicle, except a bus, trailer or motorcycle, with a gross weight rating of 10,000 pounds (4,500 kilogrammes) or less.

Meanwhile, China will continue to grow, despite an anticipated slowdown from the 28.4 percent growth in 2006 on the back of government policies aimed at cooling the economy, the report said.

This year output is expected to increase by 14.3 percent to 7.6 million units, and after that slow

further through to 2010 when production will be 11 million units, but growth will remain in double digits, it added.

By 2010, the combined output of China and Japan will account for 76 percent of the expected 31.4 million light vehicles manufactured in the Asia Pacific, said the forecast.

India, South Korea and Thailand are the only other countries in the region that manufacture over one million vehicles a year, it added.

## **Oil and Gas**

### **Biotech seeks to ease reliance on corn**

April 14 (AP) -- The ethanol craze is putting the squeeze on corn supplies and causing food prices to rise. Mexicans took to the streets last year to protest increased tortilla prices. The cost of chicken and beef in the United States ticked up because feed is more expensive. That's where biotechnology comes in.

Scientists are engineering microscopic bugs to extract fuel from a variety of non-corn sources, including the human urinary tract, a Russian fungus and the plant responsible for tequila.

The quest for alternative energy is more complicated than just finding a replacement for petroleum. Scientists and a growing number of biotechnology companies are attempting to remove corn from the ethanol equation because it has created huge demand for the global food staple.

"There is enormous growth potential" for alternative fuels, said McKinsey & Co analyst Jens Riese. "But we need to be smarter than just building the next corn ethanol plant."

Researchers are racing against time. Already, 114 US ethanol biorefineries are in operation and 80 more are under construction. Producers made nearly 5 billion gallons of ethanol last year, a 25 percent increase from the previous year.

And nearly all of it was made from edible corn kernels.

That's good news for US farmers, but consumers are suffering at the checkout stand because corn prices have nearly doubled over the last two years and will continue to climb.

And with farmers planting corn at unprecedented rates, often instead of other crops, prices for other products may soon rise as well.

Corn is a fundamental US food ingredient, found in everything from soft drinks to cough syrup. It's also a staple throughout Latin America, where residents may feel the sting of rising corn prices the most.

Backers of alternative production methods argue that a technological change is needed soon, before corn-based ethanol grows so large that other manufacturing methods will be squeezed out of the market.

That's why genetic engineers from Berkeley to Florida are racing to produce ethanol without corn. They're looking into termite guts, the human urinary tract and sap from palm trees for exotic microbes that can produce alternative fuel sources.

Scientists at DuPont Co., for instance, have been tinkering with the DNA of an agave-loving bug in a bid to make ethanol from corn waste rather than the kernel itself. Working with \$19 million of its own money and the same amount from a Department of Energy grant, the chemical company hopes to have a pilot plant in operation by 2010.

The idea is to genetically engineer microscopic bugs such as bacteria and fungus to spit out enzymes that will break down just about every imaginable crop into ethanol. This would theoretically fulfill President Bush's initiative to support flexible-fuel vehicles, which are capable of using gasoline and ethanol blends, and to cut gas consumption by 20 percent in 10 years.

A growing number of biotechnology companies, backed financially and politically by an odd coalition of national security hawks, venture capitalists and environmentalists, are remaking themselves as ethanol producers to cash in on the alternative fuel craze.

In February, the US Energy Department awarded \$385 million in grant money over four years to six projects dedicated to producing so-called cellulosic ethanol, which avoids the corn problem by making fuel from straw and other inedible agricultural leftovers. Cellulose is the woody material in branches and stems that makes plants hard.

Breaking cellulose into sugar to spin straw into ethanol has been studied for at least 50 years. But the technological hurdles and costs - specifically the expense genetically engineering exotic microbes to produce enzymes - have been so daunting that most ethanol producers instead relied on heavy government subsidies to squeeze fuel from corn.

That's now changing. Enzyme costs have fallen from about \$5 a gallon to less than 20 cents a gallon. Analysts said once enzyme prices get below a dime, cellulosic ethanol will become affordable.

"There really has to be an incredible improvement in the enzyme cost," said Kevin Baum, an executive vice president at Diversa Corp. "This can't be underestimated."

The growing number of biotechnology companies redirecting resources to capitalize on ethanol's popularity said they are getting close to making cellulosic ethanol profitable.

"It will be a very large chunk of what we do," said Per Falholt, an executive vice president with Novozymes Inc., an enzyme maker and the largest industrial biotechnology company. "It has the potential to transform the company."

Earlier this year, San Diego-based Diversa, which made enzymes for animal feed and other industrial uses, merged with the Cambridge, Mass.-based Celunol Inc. and is attempting to remake itself as an ethanol producer.

Silicon Valley billionaire Vinod Khosla, the Sun Microsystems Inc. co-founder, is among the venture capitalists gambling on cellulosic ethanol. His venture capital firm has invested millions in biotech companies pursuing alternative fuel strategies.

"In a short period of time we can replace 100 percent of our gasoline use," Khosla told executives and scientists gathered last month at an industrial biotechnology conference in Orlando, Fla.

Still, there are critics. Oil and automotive industry executives are skeptical that the country will make the investment in basic equipment.

"It does require the pumps to appear when the ethanol appears," said Coleman Jones, who heads General Motors Corp.'s biofuels projects.

#### **4 ethanol plants under way**

April 26 (China Daily) -- Four non-grain-based ethanol plants are under construction to strike a balance between an increasing appetite for ethanol and worsening food supply,

The projects are in the autonomous regions of Inner Mongolia and Guangxi Zhuang and the provinces of Hebei and Shandong.

They boast an ample supply of cassava and other bio-materials, which can be manufactured into ethanol with less cost and little environmental impact, according to experts at a food seminar in Kunming yesterday.

The four currently State-approved ethanol plants, with a total annual production capacity of 1.2 million tons, are in Northeast China's Heilongjiang and Jilin Provinces, East China's Anhui Province and Central China's Henan Province. They mostly use corn.

The plants were set up in 2000 to make use of an abundant supply of old corn. However, supplies have dried up and they now have to rely on fresh corn. This has caused a shortage in the market forcing a 15-percent price rise.

The annual production capacity of the new plants will be about 7.5 million tons by 2015, according to an expert with a State food watchdog.

China National Cereals, Oils & Foodstuffs Corp (COFCO), is building the four new plants. It also has a stake in three of the existing plants.

"COFCO will hopefully get 70 percent market share of ethanol production within three years," Yang Hong, manager with the department of wheat under COFCO, said.

According to Cao, with the operation of the new plants, the proportion of corn in ethanol-production will drop from the present 90 percent to 70 percent after 2009.

#### **Japan, China companies sign oil, gas deals**

April 12 (Reuters) -- Japanese and Chinese companies said they signed business deals in the energy sector on Thursday which may lead to possible joint development of oil and gas projects in the future, including in the East China Sea.

The deals were struck at a Japan-China energy seminar in Tokyo during Chinese Premier Wen Jiabao's visit here.

Nippon Oil Corp. and China National Petroleum Corp. (CNPC) signed an accord for long-term cooperation, including overseas oil and natural gas resources development.

"The agreement will cover many things," Nippon Oil Chairman Fumiaki Watari told a small group of reporters after the signing. "We will have to discuss specifics."

Watari said the deal may cover the East China Sea.

"Of course, our company has a block allocated there," Watari told Reuters on the sideline of the seminar. He did not give further details.

Tokyo and Beijing disagree over the boundary between their exclusive marine economic zones in the East China Sea, and Japan objects to Chinese development of gas fields near the border.

However, Watari did not say if Nippon Oil's block is located in the disputed waters.

China National Offshore Oil Corp. (CNOOC) on Wednesday confirmed for the first time it had begun producing gas at a field in the East China

Sea despite Japan's objections. Tokyo fears the development might drain off its resources.

Nippon Oil also expects to expand bilateral trade in crude oil, oil products and liquefied petroleum gas (LPG).

Mitsui & Co.'s U.K. unit and CNOOC signed an accord on liquefied natural gas (LNG) spot trading at the seminar, where Japanese and Chinese business and government officials gathered as Premier Wen makes his first visit to Japan.

A spokesman for Mitsui, Japan's second largest trading firm, declined to give details of the agreement with CNOOC, which he referred to as an end-user of LNG.

The energy sector and the environment are high on the agenda during Wen's stay this week.

He and his Japanese counterpart Shinzo Abe said in a joint statement on Wednesday that China and Japan, the world's second and third largest oil users, will closely cooperate in the energy sector and work to reduce greenhouse gas emissions.

Ma Kai, chief of China's National Development and Reform Commission, said at the seminar that Beijing has set targets to raise energy efficiency relative to economic output by 20 percent and to cut emissions of major pollutants by 10 percent in coming years.

Japan's fuel efficiency is the highest in the world.

"This is a massive investment opportunity and we sincerely welcome Japanese businesses to come and develop in China," Ma said.

Japan's Sumitomo Corp., Kyushu Electric Power Co and utility China Datang Corp. have already agreed to cooperate in the development of renewable energy sources.

The three companies are discussing the joint operation of wind power generators in Mongolia to begin in late 2008.

## Oil firms told to boost offshore production

April 3 (China Daily) -- The country should look increasingly offshore to shore up dwindling onshore production, oil companies were told yesterday.

"The current offshore oil and gas exploration and production should focus on the Bohai Bay basin and the Pearl River estuary as the top priority," Pan Jiping, a senior researcher with the Ministry of Land and Resources, said at China Offshore Summit 2007.

"As for deep-sea exploration, the firms should invest more in blocks in the northern part of the South China Sea," Pan said.

More than 80 percent of China's proven offshore oil reserves are located in the Bohai Bay basin, and the country needs to beef up exploration in the Pearl River estuary, the South China Sea and the southern Yellow Sea, he said.

The southern Yellow Sea is the only offshore area where no major oil and gas reserves have been discovered so more efforts should be made there, Pan emphasized.

The ministry is expected to publish an appraisal of China's overall offshore fossil fuel reserves soon, giving more detailed guidelines to oil companies.

"We are also considering reforming the current project review and approval format to give more opportunities to international players. We may adopt more international practices, such as bidding, to allocate mining rights," Pan stressed.

He called on Chinese offshore companies to develop technologies for deep-sea oil and gas exploration.

Han Xuegong, a senior consultant with China National Petroleum Company (CNPC), the country's largest oil and gas producer, noted that given soaring energy demand and the decreasing production in oil fields located in the eastern part of the country, it is natural for national conglomerates to make more efforts offshore.

"It is true that developing offshore reserves involves higher risks and requires more investment and technical expertise. But given the current global oil prices, it is absolutely worth the risk.

"That is mainly why CNPC and China National Offshore Oil Corp (CNOOC) are marching offshore," Han said.

Both CNPC and China's top offshore oil company CNOOC announced yesterday that they are developing deep-water drilling platforms with a 3,000-meter extraction capacity.

Zhang Weiping, deputy chief economist of CNOOC, said that 70 percent of oil reserves in the South China Sea are in deep water, which require deep-sea drilling capacity.

### **Wholesale price of natural gas may climb**

April 4 (Shanghai Daily) -- The Chinese government may announce a 10 percent increase in the wholesale price of natural gas this month, said a source with China's largest oil producer.

This would be the second rise in its wholesale price since December 2005 when the National Development and Reform Commission, the nation's top economic planner, raised the price by 50 yuan (US\$6.47) to 150 yuan per one thousand cubic meters, an average increase of 10 percent.

A China National Petroleum Corporation official, who spoke on condition of anonymity, gave no further details including the timing of the price increase announcement.

Analysts said China's government-regulated gas price is much lower than the international level.

The Chinese government has been mulling energy price reform in a bid to encourage efficient energy use by companies and individuals. China reduced energy consumption per unit of gross domestic product by 1.2 percent last year, well short of its four percent target.

"The energy price reform is irreversible as current fuel, gas and water prices do not reflect the scarcity of resources," Ma Kai, head of the NDRC, said at a press conference held on the sidelines of the National People's Congress, or parliament, in March.

On Sunday, Beijing raised the price of natural gas for civilian use by 0.15 yuan per cubic meter to 2.05 yuan to encourage energy efficiency.

### **PetroChina releases CSR report**

April 12 (China Daily) -- PetroChina, China's top oil company, unveiled its first corporate social responsibility (CSR) report yesterday, highlighting energy supply, public welfare, and health, safety and environment (HSE) obligation to employees.

The Hong Kong- and New York-listed company gave top priority to fulfilling its social responsibilities in facilitating economic and social development while ensuring a stable energy supply.

"We focus on developing our core business of oil and gas and strive to ensure stable energy supply. In addition, we always pay close attention to the interests of stakeholders and actively participate in public welfare activities with an aim of harmonious development between our enterprise and society," said Jiang Jiemin, president of PetroChina.

PetroChina took various measures to improve its HSE management last year, investing 13.2 billion yuan in eliminating potential safety and environmental hazards, according to its CSR report.

Last year, the firm's integrated energy consumption in oil and gas production, and refining and producing ethylene products was reduced by 18 percent, 14 percent, and 13 percent respectively. It saved more than 1.3 million tons of coal equivalent and around 60 million cubic meters of water in the process.

"PetroChina is both a large producer of energy and a large consumer of resources. We focus on

energy and water conservation as well as efficient and consolidated land use," Jiang said.

With the increasing supply of gas from PetroChina, the natural gas consumption in Beijing rose to 3.8 billion cubic meters in 2006 and the number of gas-consuming households reached 3.21 million.

The company also made substantial efforts in developing bio-fuel. It has started the construction of the first phase of the non-grain bio-fuel operation center in Yunnan and Sichuan, marking significant progress in bio-fuel development.

PetroChina last year donated 80 million yuan for natural disaster relief and 16 million yuan for education. It also participated in various community activities not only at home, but also abroad.

The company donated 12 ambulances to various communities and 100 computers to schools in Kazakhstan, and took up the responsibility of maintaining community roads in the country.

To support Indonesia's infrastructure development, PetroChina contributed 6.4 million yuan to repair roads and municipal buildings there.

### **Oil prices drop in Asian trading**

April 9 (AP) -- Oil prices fell Monday amid relief over last week's release of British sailors detained by Iran, but concerns over the tight demand-supply balance and other geopolitical issues supported prices.

Light, sweet crude for May delivery fell 44 cents to \$63.84 a barrel in midmorning Asian electronic trading on the New York Mercantile Exchange.

Oil prices rose more than \$5 a barrel - hitting six-month highs - after the March 23 detention of the 15 sailors and marines. The market immediately fell following their release Thursday,

but markets were closed starting Friday for the long Easter weekend.

"Ahead of a long weekend, traders are more cautious and tend to take long positions," said Victor Shum, energy analyst with Purvin & Gertz in Singapore. "Monday's drop reflects a delayed market correction to their release."

Shum predicted a further drop but said prices were unlikely to return to the \$61-62 a barrel range where oil was trading before the Britons were captured.

He noted that gasoline supplies in the United States were tight and demand for crude oil would also pick up.

"Primarily, the market has found support in the fundamentals," Shum said. "Tightening fundamentals will help prevent prices from sliding too far."

Last week's annual report by the US Energy Information Administration showed a larger-than-expected increase in gasoline supplies but lower refinery output. Many refineries have suffered unplanned outages in recent weeks, which has weakened demand for crude and reduced gasoline production.

Refinery problems in the US have prompted traders in the physical market to look overseas - which, combined with increased demand in Europe, has driven the price of oil traded in London up over \$68 a barrel, higher than in New York.

Lingering geopolitical worries - upcoming elections in Nigeria that could spur further unrest, and Iran's nuclear issues - would also strengthen prices, Shum said.

In other Nymex trading Monday, natural gas fell 0.1 cent to \$7.606 per 1,000 cubic feet, and heating oil futures were down 0.34 cent to \$1.8575 a gallon.

### **China plans oil output rise**

April 11 (Xinhua) -- China plans to produce 193 million tons of crude oil and 92 billion cubic meters of natural gas in 2010 as rapid economic growth boosts energy demand, said the nation's top planning agency.

The country pledges to apply new technologies and increase investment to boost oil and gas output, according to China's Eleventh Five-Year Plan for Energy Development (2006-2010) released by the National Development and Reform Commission on Tuesday.

The plan said China, the world's second-biggest energy consumer, will also draw up incentives to encourage investment in oil and gas exploration and production.

It said China will step up development of renewable and nuclear energy and hydropower to encourage environmental protection. It will also ensure people who are displaced by the projects are provided adequate resettlement.

China will speed up development of its six major coal production bases and hydropower stations on the upper reaches of the Yellow River, and middle and upper reaches of the Yangtze River and several of its major tributaries, according to the plan.

The plan also said China will strive to limit its energy consumption to 2.7 billion tons of standard coal, an annual growth of four percent between 2006 and 2010.

It said China aims to produce 2.4 billion tons of standard coal in 2010, an annual growth of 3.5 percent.

China will strive to cut energy consumption per 10,000 yuan (1,370 U.S. dollars) of gross domestic product from 1.22 tons of standard coal in 2005 to 0.98 tons in 2010, an annual decrease of 4.4 percent, said the plan.

Last year the country lowered its energy consumption per unit of GDP by 1.23 percent, falling short of its 4 percent reduction target.

China also pledged to reduce emission of sulfur dioxide by 8.4 million tons and that of carbon

dioxide by 360 million tons during the five-year period.

To achieve the target, the country needs to optimize its economic structure and focus more on recycling and growing the service sector and high-tech industries, the commission said.

The plan also calls on China to build its strategic oil reserves, and speed up construction of oil and gas pipelines and terminals to offset surging oil prices and prepare for possible supply cuts.

The plan noted China will reform its pricing system of oil and natural gas to encourage energy efficiency.

It added the nation will also step up efforts to develop substitute energy to cut its dependency on oil. The commission said oil imports accounted for more than 40 percent of China's oil consumption.

China saw an increase in its total energy consumption in 2006. The consumption included 2.37 billion tons of coal, up 9.6 percent year on year; 320 million tons of crude oil, up 7.1 percent; 55.6 billion cubic meters of natural gas, up 19.9 percent.

## Climate Change and Air Pollution

### China to act on pollution, warming gases

April 28 (Agencies/Xinhua) -- Premier Wen Jiabao pledged Friday to help clean China's air and water and combat global warming by phasing out tax breaks and discounts on land and electricity for highly polluting industries.

"More work on energy conservation and emissions reduction is urgently required to deal with global climate change," Wen said. "Our country is a major coal producer and consumer, and reducing polluting emissions is a responsibility we should bear."

"The challenge of reducing energy consumption and greenhouse gas emissions has proved arduous as China's economy grew 11.1 percent

in the first quarter but power consumption surged 14.9 percent," said Wen.

China accounted for 15 percent of the world's greenhouse gases in 2000, second to the United States' 21 percent. The country's fast economic boom has left waterways and coastlines polluted by industrial and farm chemicals and domestic sewage.

"We must clearly recognize that the situation the nation faces regarding energy conservation and emissions reduction is still quite grim," Wen said at a meeting of other top government leaders, in a speech posted on the government Web site.

He noted that China has failed to meet earlier goals to reduce emissions and conserve energy.

The Chinese government has set a target of reducing energy consumption for every 10,000 yuan (US\$1,298) of GDP by 20 percent by 2010, while pollutant discharge should drop by 10 percent.

But energy consumption fell only 1.23 percent last year, well short of the annual goal of four percent. Instead, energy use fell by only 1.2 percent. Sulfur dioxide and other polluting emissions, meanwhile, are supposed to fall by 10 percent by 2010, but last year they rose slightly.

"This is a crucial year for China in its efforts to meet the energy saving and emission reduction target set for the 2006-10 period," said Wen.

In his speech, Wen pointed out that local governments would "clean up and rectify preferential policies that give land and electricity discounts or tax breaks to energy-intensive or highly polluting industries."

"To curb excessive growth of the sectors that consume too much energy and cause serious pollution, China must tighten land use and credit supply and set stricter market access and environmental standards for new projects," said Wen.

Wen also said China should work harder to create a system whereby polluters pay for environmental damage they cause, and

enterprises investing in clean energy are rewarded. He also called for continued price reforms on natural gas, heating fuel and water to encourage energy conservation, without giving a timeframe for price increases.

"Without faster restructuring and an efficient method of economic growth, China's natural resources and the environment will not be able to sustain its economic development," said Wen.

"We have no choice but to develop in an economical, clean and safe way," he said.

China is a signatory to the Kyoto Protocol on reducing greenhouse gases, but as a developing nation it is exempt from its mandatory cutbacks.

Consultant Peter Fusaro, of New York's Global Change Associates, said China's clean-up campaign is motivated by the spotlight of the 2008 Olympics, to be held in Beijing, a growing grass-roots environmental movement in China and increasing media attention on China's pollution problem.

### **Experts urge China to adopt low-carbon economy**

April 25 (China Daily) -- China should develop a low-carbon economy, as a way to drive economic growth without mitigating the effects of global warming, experts on climate change said at a seminar held in Beijing on Monday and Tuesday.

The seminar, entitled "The Low-Carbon Economy and China's Energy & Environmental Policy" was organized by the China Council for International Cooperation on Environment and Development, which comes under the country's top environmental administration.

Rajendra Pachauri, chairman of the Intergovernmental Panel on Climate Change (IPCC) under the United Nations, said: "China should prepare a road map of how to move to a low-carbon economy and how the cost of such a move can be met.

"Some renewable energies are still very expensive, so we will have to research how much it will cost."

He said that the seminar was a good start for China in exploring the possibility of a low-carbon economy, which would help protect the environment and contribute to cutting greenhouse gases (GHGs).

The world has a shared responsibility to cut GHG emissions, Pachauri said.

Linda Adams, secretary for environmental protection at the California Environmental Protection Agency in the United States told China Daily that the biggest problem China had in developing a low-carbon economy was its high dependence on coal-fired power plants, which generate 70 percent of the country's total power.

"Technology does not yet exist to produce clean coal and sequester carbon," she said.

Adams highlighted the role of NGOs in urging the government to take action to mitigate climate change.

She cited the case of the US-based NGO Environmental Defense, which along with other NGOs, won a Supreme Court ruling against the US Environmental Protection Agency, which has been forced to reconsider its stance on tailpipe emissions, which account for almost 20 percent of the USA's carbon contribution to global warming.

### **Time to expose censors of climate change**

April 12 (China Daily) -- The drafting of reports by the world's preeminent group of climate scientists is an odd process. For months scientists contributing to the Intergovernmental Panel on Climate Change (IPCC) tussle over the evidence. Nothing gets published unless it achieves consensus. This means that the panel's reports are conservative - even timid. It also means that they are as trustworthy as a scientific document can be.

Then, when all is settled among the scientists, the politicians sweep in and seek to excise from the summaries anything that threatens their interests.

The scientists fight back, but they always have to make concessions. The report released last Friday for example, was shorn of the warning that "North America is expected to experience locally severe economic damage, plus substantial ecosystem, social and cultural disruption from climate change related events."

This is the opposite of the story endlessly repeated in the rightwing press: that the IPCC, in collusion with governments, is conspiring to exaggerate the science. No one explains why governments should seek to amplify their own failures. In the wacky world of the climate conspiracists no explanations are required. The world's most conservative scientific body has somehow been transformed into a conspiracy of screaming demagogues.

This is just one aspect of a story that is endlessly told the wrong way round. In the United Kingdom's Sunday Telegraph and the Daily Mail newspapers, in columns by Dominic Lawson, Tom Utley and Janet Daley, the allegation is repeated that climate scientists and environmentalists are trying to shut down debate. Those who say that man-made global warming is not taking place, they claim, are being censored.

In a recent interview, Martin Durkin, who made UK TV's Channel 4 film *The Great Global Warming Swindle*, claimed he was subject to "invisible censorship".

Complaints about one of his programs had been upheld by the Independent Television Commission. It found that "the views of the four complainants, as made clear to the interviewer, had been distorted by selective editing" and that they had been "misled as to the content and purpose of the programs when they agreed to take part". This, apparently, makes him a martyr.

The Union of Concerned Scientists found that 58 percent of the 279 climate scientists working at federal agencies in the United States who responded to its survey reported that they had experienced constraints on their reports or statement on climate change.

After Thomas Knutson at the National Oceanographic and Atmospheric Administration (NOAA) published a paper in 2004 linking rising

emissions with more intense tropical cyclones, he was blocked by his superiors from speaking to the media.

He agreed to one request to appear on MSNBC, but a public affairs officer at NOAA rang the station and said that Knutson was "too tired" to conduct the interview. The official explained to him that the "White House said no."

All media inquiries were to be routed instead to a scientist who believed there was no connection between global warming and hurricanes.

Last year NASA's top climate scientist, James Hansen, reported that his bosses were trying to censor his lectures, papers and web postings.

He was told by NASA's public relations officials that there would be "dire consequences" if he continued to call for rapid reductions in greenhouse gases.

At hearings in the US Congress three weeks ago, Philip Cooney, a former White House aide who had previously worked at the American Petroleum Institute, admitted he had made hundreds of alterations to government reports about climate change on behalf of the Bush administration.

Would it be terribly impolite to suggest that when such people complain of censorship, a certain amount of projection is taking place?

#### **China to take part in post-Kyoto talks: report**

April 11(Reuters) -- China will take part in negotiations on a framework for limiting global warming after 2012, the daily Yomiuri Shimbun said on Saturday.

On Friday, climate experts issued their starkest warning yet about the impact of global warming, which is widely blamed on emissions of greenhouse gases from burning fossil fuels.

China is not subject to binding emissions targets under the U.N. Kyoto Protocol, the main plan for capping greenhouse gas emissions, which is in effect up to 2012.

The Yomiuri said that Beijing would express its intention to take part in talks on setting up a post-Kyoto framework in a joint statement to be issued during Chinese Premier Wen Jiabao's visit to Japan from Wednesday.

In addition, Japan would announce that it would assist China with energy-saving technology, the paper added.

Experts have long said that if any post-Kyoto agreement is to succeed, major emitters such as China, India and the United States need to be on board.

China is set to unveil its national plan to tackle global warming later this month, and a top climate change official said in March that the plan would include policies for cutting back greenhouse gases but declined to comment on whether it would give an overall national target.

Beijing has resisted calls for caps on its rapidly rising emissions, saying rising global temperatures are largely the result of fossil fuel use by industrialized nations and it has the right to seek the same level of prosperity that they enjoy.

#### **New climate change report released**

April 10 (AP) -- BANGKOK, Thailand - Warming temperatures will cause increased drought and sea-level rises in Australia and New Zealand by 2030 and threaten ecologically rich sites such as the Great Barrier Reef, according to excerpts from a new scientific report released Tuesday.

The South Pacific Islands, meanwhile, will be swamped by sea level rises as well as increased frequency of cyclones, according to the latest report from the Intergovernmental Panel on Climate Change.

Island economies also will suffer as warming waters damage coral reefs and hurt the fishing industries, the report said.

A summary of the full, 1,572-page document written and reviewed by 441 scientists was released Friday. This document, the second of

four reports, tries to explain how global warming is changing life on Earth.

Further details were being unveiled Tuesday in a series of regional news conferences around the world.

For Australians and New Zealanders, the warming temperatures will be felt mostly through increasingly extreme weather events.

"Heat waves and fires are virtually certain to increase in intensity and frequency," Kevin Hennessy, the coordinating lead author on the chapter for Australia and New Zealand, said in a statement.

"Floods, landslides, droughts and storm surges are very likely to become more frequent and intense and frosts are very likely to become less frequent," he said.

The rising temperatures, according to the report, also will lead to a loss of a quarter of alpine ice mass in New Zealand, drops in agriculture production in southern and eastern Australia and eastern New Zealand, as well as the spread of tropical diseases such as dengue fever.

Sea level rises in the South Pacific islands "are likely to endure exacerbate inundation, storm surge, erosion, and other coastal hazards, thus threatening vital infrastructure, settlements and facilities that support the livelihood of island communities," according to the report.

Penehuro Lefale, one of the lead authors on the small island chapter, said in a statement that the warming temperatures also will hurt sectors as wide-ranging as tourism, agriculture and fisheries on many island nations.

"Climate change is likely to heavily impact coral reefs, fisheries and other marine-based resources of small islands of the Pacific," he said. "There is likely to be a decline in the total tuna stocks and a migration of these stocks westwards, both of which will lead to changes in the catch in different islands."

#### **UN to look at climate change threats**

April 5 (AP) -- The UN Security Council put climate change on its agenda for the first time, warning global warming could be a catalyst for new conflict around the world.

The council said it would hold a high-level meeting later this month on how changing weather patterns could threaten international security.

"The traditional triggers for conflict which exist out there are likely to be exacerbated by the effect of climate change," Britain's UN Ambassador Emyr Jones Parry, the council president, said Wednesday.

British Foreign Secretary Margaret Beckett will chair the April 17 meeting and has invited the 14 other council nations to be represented at ministerial level, Jones Parry said. No statement or resolution is expected from the meeting, the council's first on the subject,

Last month, an international panel of scientists presented the United Nations with a sweeping, detailed plan to combat climate change, warning that failure would produce a turbulent 21st century of weather extremes, spreading drought and disease, expanding oceans and displaced coastal populations.

Diplomats are meeting with scientists this week in Brussels to endorse the study, which will guide policymakers for decades to come.

The report was issued just three weeks after the Intergovernmental Panel on Climate Change, an authoritative UN network of 2,000 scientists, reported that global warming is being caused largely by the accumulation of carbon dioxide and other heat-trapping gases in the atmosphere, mostly from man's burning of coal, oil and other fossil fuels.

Jones Parry said he expects a summit on climate change next year, likely in September 2008.

Secretary-General Ban Ki-moon has not committed to a summit, but he has said he would discuss how best to confront the climate change problem with world leaders at a meeting

of the Group of Eight industrialized countries in June.

### EU official pushes US on emissions

April 2 (AP) -- A UN conference on climate change opened Monday with the EU's top environment official calling on the United States to join efforts to curb global warming. Scientists and diplomats are meeting in Brussels this week to issue a report on how rising temperatures will affect the earth and whether people can do anything about them.

A draft of the report by the Intergovernmental Panel on Climate Change, a UN network of 2,000 scientists, warns that climate change could threaten the lives of hundreds of millions of people in the decades to come.

In the absence of action to curb emissions of carbon dioxide and other heat-trapping gases, the future looks bleak, according to the draft obtained by The Associated Press.

By 2020, between 400 million and 1.7 billion extra people will not get enough water. By 2050, as many as 2 billion people could be without water and about 20 percent to 30 percent of the world's species near extinction.

EU Environment Commissioner Stavros Dimas urged the United States to end its "negative attitude" toward negotiations on a new international agreement to reduce greenhouse gases.

The European Union expects the United States to cooperate more closely, Dimas said.

"It is absolutely necessary that they move," he told the conference, saying that without US participation, other countries would have no reason to curb their emissions.

President Bush rejected the Kyoto protocol, the 1997 pact that requires 35 industrial nations to cut their global-warming gases.

Changing weather patterns have already reshaped the world, but they will accelerate in the decades to come, the report says.

Severe drought, devastating floods and widespread hunger and disease are among some of the threats to humanity.

"We are going into a realm the Earth has not seen for a very long time ... over the past 800,000 years," said Camille Parmesan, a University of Texas biologist who reviewed the upcoming report.

About 285 delegates from 124 countries are meeting in Brussels with more than 50 of the scientists who compiled the report. As governments will use the report to set policy, the final wording must be adopted by consensus among the diplomats, with the approval of the scientists.

The report will be the second volume of a four-volume authoritative assessment of Earth's climate released this year. The first in February updated the science of climate change, concluding with near certainty that global warming is caused by human behavior.

This week's closed-door talks in Belgium are likely to focus on predictions of how many people will be at high risk and whether such specific weather events like Hurricane Katrina should be attributed to global warming.

"Do you use examples? And do you use ones that are relatively positive or highly negative?" said Rik Leemans, a co-author from Wageningen University in the Netherlands. "You can tone it down or strengthen it by including examples, and that's always an issue in these discussions."

Even the most optimistic forecasts say the climate will continue to change and the planet will be irrevocably damaged. The question is, how much?

Water is a big concern because of the risk that rising sea levels from melting glaciers and ice caps could contaminate fresh water supplies with salt even as higher temperatures diminish those supplies. That could lead to severe drought and widespread hunger and disease from water-borne illnesses.

Small islands will probably be submerged, and tens of millions of people in coastal cities and river basins will likely be affected by flooding from sea surges, the draft report says.

The IPCC's work will be presented at a summit in June of leaders from the world's richest countries, whose vehicles and factories contribute heavily to production of heat-trapping greenhouse gases.

The last such assessment of climate change was in 2001. Since then, studies have tracked specific shifts on the ground to changing temperatures and weather patterns.

"Many natural systems on all continents and in some oceans are being affected by regional climate changes, particularly temperature increases," the draft reads.

Parmesan said storms and floods have become more severe in some places, coastlines have eroded and deserts have expanded. Diseases common in the tropics have spread.

In the northern hemisphere, spring is coming an average two weeks earlier, disrupting bird migrations and causing flowers and trees to bloom too early.

At least 70 species have become extinct so far because of global warming, Parmesan said in a telephone conference with reporters.

But scientists say people can avoid the worst-case scenarios. A third report due out in May will outline strategies for slowing global warming.

"These are projections that many of us believe don't have to be the future; many of these can be avoided," said James J. McCarthy, a Harvard University oceanographer who was a main author of the 2001 assessment.

He said he is optimistic the worst won't happen "because we can't be that stupid."