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

# MONTHLY NEWS BRIEFING

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## AUTO/ENERGY/POLLUTION

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## General Energy Issues

### China's basic energy law to be outlined by the year end

Nov 27 (Xinhua) - The first draft of China's first energy law, which will shape the country's future energy policies, will be outlined before the end of the year, according to the National Development and Reform Commission (NDRC).

Energy experts have called for the law, which needs two years to be passed by the legislature, to define clearly the regulations for foreign acquisitions and to set up an authoritative body through which all energy projects have to be approved.

Experts also suggest that the responsibilities of the central government and the local governments regarding the approval of energy projects should be stipulated, along with specific regulations on environmental and safety measures.

Meanwhile, the draft of the recyclable economy law has been completed and will be submitted to the legislature next year, according to a recent forum on a recyclable economy.

The 11th Five-Year Plan guiding China's development between 2006 and 2010 emphasized that building a recyclable economy was an important way for China to build a resource-efficient and environment-friendly society, thus realizing sustainable development.

As the second largest energy producer and consumer in the world after the United States, China now has four specific energy laws, covering the coal industry, electric power, energy conservation and renewable energy.

However, the country has yet to draw up legislation on petroleum and natural gas.

### Plan to Enhance Use of Renewable Resources

Nov 13 (shanghai daily) - China will launch a raft of measures to boost the development of its bio-energy and bio-chemical industry as it seeks to reduce dependency on crude oil imports and curb pollution.

They will include a risk fund system which will subsidize projects when oil prices are low, subsidy on land-use rights for raw material extraction, bailouts for pilot projects and preferential taxation policies.

These new measures, of which details were not released, were announced late on Friday by the Ministry of Finance, the National Development and Reform Commission, the Ministry of Agriculture, the State Administration of Taxation and the State Forestry Administration.

Vice Minister of Finance Zhu Zhigang said besides being environment-friendly and able to ensure energy security, bio-energies can help boost income for farmers as bio-diesel and ethanol use crops as feedstock.

But Zhu also warned the sector should only be developed if national food security is safe. The government said in April it wouldn't expand production of ethanol gasoline made from grains like wheat in near future due to a tight foodstuff supply.

"We should tightly control the production of bio-energy that use grains as feedstock," Zhu said. "The industry should grow in a healthy way step by step and we don't favor a mass action."

Zhu said the government will select companies to grant subsidies to based on factors such as their efficiency and technological know-how.

Some companies, it seems, are keen on the idea. China National Offshore Oil Corp has been studying the feasibility of building bio-diesel plants on Hainan Island and in

Sichuan Province. Last month, Austria's Biolux started building a US$150 million bio-diesel plant in Nantong, Jiangsu Province.

According to an earlier announced target, China wants a tenth of its energy to come from renewable resources, which include hydro, solar, wind and bio-energy by 2010 and 16 percent by 2020. The share is around seven percent now.

**IEA: Nation should not become an 'energy scapegoat'**

Nov 28 (Chinadaily) - Despite the need for China to cutback on energy use, the country should not become the global scapegoat for surging oil prices and a tight energy supply, according to the International Energy Agency (IEA).

"Increased demand for energy from China is not the only thing driving up the global oil price," said Noe Van Hulst, director of Long-term Co-operation and Policy Analysis at the IEA. "In fact, market fundamentals demonstrate that as long as investment goes to fuelling oil production, there will be enough oil at affordable prices for the world economy."

The development of emerging economies such as China and India does exert pressure on global energy prices, Van Hulst said. But it is wrong to say they are the only forces driving higher prices, he said.

There will be enough oil reserves for the development of the global economy, Van Hulst said. The key is whether there is enough investment poured into production.

The Paris-based IEA is an energy policy advisor for 26 industrialized nations, and is considered the world's energy watchdog.

The organization predicts the price for oil and natural gas will stay high into the future due to robust demand and restricted investment in production.

By 2010, however, oil prices may go down as investments in production and technology improvement increase, Van Hulst said.

The IEA's latest World Energy Outlook said the world is being confronted with a lack of adequate and secure energy supplies at affordable prices, as well as environmental hazards triggered by over-consumption.

According to the IEA report: "The need to curb the growth in fossil-energy demand, to increase geographic and fuel-supply diversity and to mitigate climate-destabilizing emission is more urgent than before."

In the report, the organization called for China to cut back on oil imports and put restrictions on energy use.

Van Hulst advised that China should consider alternative energy options and rely on policy guidance to enhance energy efficiency.

"Stricter and higher energy efficiency standards, involving either emission benchmarks, power generation or other areas, should be applied by the authority to curb demands," Van Hulst said. "What should follow next is to encourage the adoption and development of cleaner and renewable energy resources, such as clean coal, wind and solar energy."

China should also reduce or stop subsidizing dirty energy industries and businesses, such as coal production, he said.

Han Wenke, deputy director of the Energy Research Institute under the National Development and Reform Commission, said the government should support renewable energy resources.

"Developing renewable energy is investing for the future and the State should subsidize promising options," Han said.

**Conserving energy crucial: group**

Nov 27 (Chinadaily) - Developing renewable energy and improving energy efficiency will help China achieve a balance between its economic development and environmental protection, a top environment expert said.

"The demand comes from not only the country's big size, huge population and fast economic growth, but also that many developing countries look to China as an example to work out a good climate and energy policy," said Gerd Leipold, international executive director of Greenpeace, one of the world's most well-known environmental groups.

Meanwhile, the country only has one year to prepare for the next UN Climate Change Conference, when China will have to join other countries in limiting greenhouse gas emissions.

An efficient energy policy will help China fulfil its commitment to the international community, he said. He added it is in China's own interests to cut emissions.

Leipold said developing countries no doubt need to increase their energy supply, but the increase should come from renewable energy and efficient use.

"It is certainly very challenging, but I think in a harmonious society, an efficient modern energy system will produce less pollution, modern industry and healthier air quality," he said.

China has huge environmental problems, such as water pollution, air pollution, agricultural land loss and pesticide use, according to Leipold. "But the government has recognized it and done good work," he said. "I have the impression it has given more priority to it than in the past."

For example, the State Environmental Protection Administration (SEPA) in 2004 set a standard that losses caused by environmental pollution should account for no more than 3 per cent of the gross domestic product (GDP).

"It is good for SEPA to define a green GDP," he said. "More countries should use it as a guide for environmental policy."

But it is still not enough, Leipold said. The country should strengthen law enforcement in the environmental field. He suggested the government give SEPA full ministerial status.

This year, Greenpeace carried out a lot of environmental campaigns in China. For example, it helped the Chinese Government push the use of renewable energy, especially on the drafting of a renewable energy law.

It also successfully made a number of big computer companies, which produce mostly in China, such as Acer, Hewlett-Packard and Dell, promise not to use toxic materials in their computers.

Next year, in line with the organization's worldwide priorities, climate change will still be a top priority, Leipold said.

**Green projects to combat poverty**

Nov 22 (Chinadaily) - Rural areas across China are about to join the green revolution thanks to a programme aimed at developing sustainable energy resources and alleviating poverty.

The four-year Green Poverty Reduction in China programme will feature three projects developed jointly by the United Nation Development Programme (UNDP) in China and the central government.

With a budget of US$8.6 million, the programme will help farmers in Southwest China develop the seeds of a local tree that can be used as a bio-fuel. It will also encourage the cultivation of a plant used in Chinese traditional medicine in Northwest China's Xinjiang Uygur Autonomous Region

and provide small wind turbines to herdsmen in the Inner Mongolia Autonomous Region.

The UNDP provided US$2.3 million for the programme. The rest came from the Ministry of the Science and Technology (MOST) and the local governments involved.

Under the programme, poor farmers in Southwest China's Guizhou, Yunnan and Sichuan provinces will be taught how to cultivate the Jatropha Curcas L tree, a wild tree whose seed can be processed into a bio-fuel.

Based on the technology available, a household that devotes 2 mu (about 1,333 square metres) of land to planting this tree is expected to generate annual income of 500 to 800 yuan (US$62.5 to 100), said programme coordinator Xu Yunsong.

The project will also support the growth of Jarrah Dayun, a raw material in traditional Chinese medicine, in Northwest China's Xinjiang Uygur Autonomous Region.

Large-scale involvement will facilitate the creation of a market for the farmers' goods, said Steve Ivatt, a consultant to the programme and a staff member of the UK-based Clean Energy Consultant. Establishing a sustainable market chain that is fully accessible to the poor will reduce the potential risk of the project, Ivatt added.

**Huaneng launches new generating facility**

Nov 29 (Chinadaily) - China Huaneng Group launched the nation's first 1,000 MW (megawatt) ultra-supercritical coal-fired generating unit yesterday.

The unit is at Huaneng Yuhuan Power Plant in East China's Zhejiang Province, the first phase of which contains two 1,000 MW generating units, involving an investment of 9.6 billion yuan (US$1.22 billion).

Huaneng also signed an agreement last Friday with the Xinjiang Uygur Autonomous Region to develop coal-fired, hydropower and wind power projects.

As the nation's biggest electricity producer, Huaneng plans to spend as much as 250 billion yuan (US$31.65 billion) by 2010 to more than double its generation capacity.

The investment aims to add new facilities with a combined capacity of 50 GW (gigawatts), according to Li Xiaopeng, president of the Beijing-based power conglomerate, whose total capacity stood at 43.2 GW at the end of last year.

China, the world's fastest growing major economy and the second-biggest energy consumer, has urged domestic power makers to make large investments to scale up their capacity portfolios.

Newly commissioned generators have greatly eased electricity shortfalls that have plagued most of the country over the past four years, and a supply-demand balance is expected within a couple of years, according to industry analysts.

With the boom in China's electricity sector, the nation's top electricity companies see advanced technology as the key to their future development.

According to Huaneng, ultra-supercritical coal-fired power generating technology, which is more environmentally friendly and energy-saving than traditional technology, is the world's most advanced coal-fired power generating technology.

The State Grid Corp of China, the nation's biggest electricity distributor, started to build the country's first ultra-high voltage (UHV) transmission line this August.

The 1,000-kilovolt line will supply the city of Jingmen in energy-hungry Hubei Province with power from the southeastern parts of coal-rich Shanxi Province.

The new line is part of the country's ambitious scheme to connect its resource-abundant west with the energy-intensive

east, to improve resource allocation and ensure stable energy supply, analysts said.

Apart from the Shanxi-Hubei pilot project, more ultra-high voltage lines with a capacity greater than 800 kilovolts are being planned, which will send power from the country's major electricity bases, which are fuelled by hydro, nuclear and coal sources.

Apart from advanced technology, China's electricity giants also aim to achieve expansion through the capital market.

Datang International Power Generation Co said yesterday it would start selling shares in China on December 6 to raise funds for the construction of power plants. Datang Power will start discussions with potential buyers to price the shares, the Beijing-based company said in a prospectus to the Shanghai Stock Exchange, where the stock will trade.

It won approval from the Chinese Government on November 21 to sell a maximum of 500 million shares. Datang posted 1.27 billion yuan (US$160.8 million) net profit in the first six months of 2006, representing 14 per cent year-on-year growth.

**Friedman: Nothing girly about being green**

Nov 14 (Chinadaily) - The public is yet to warm up to the Chinese version of "The World Is Flat" (2.0) here in China since its release in September, but Thomas Friedman, the writer, is in Beijing to share his concerns about the quest for energy and his ideas for a "green" world.

He says he will put all those into his new book, which is entitled "Green is the New Red, White, Blue."

For many years, Americans have associated people who advocate "green" as "tree-hugging, girly men, sissy, unpatriotic," Friedman told a group of journalists yesterday at a workshop organized by Capital Young Journalists' Association in Beijing.

What he is going to assert and discuss in his new book is that "Green being green, living green, thinking green, acting green is the most geopolitical, geo-strategic, geo-economic and patriotic thing you can be as an American."

"The world has embroiled itself in an energy crisis today that is not our parents', and the way to get us out of that crisis is to go 'green'," said Friedman, a columnist for The New York Times.

Why? "The world is flat," he said.

By "flat," he means that economic globalization, along with the advent of the Internet and the digital revolution, has connected billions of people on the planet and enabled them to do business and prosper.

However, Friedman has calculated that globalization is creating the emergence of about 3 billion new consumers in the world, "all with their own version of the American dream a house, a car, a toaster, a microwave and a refrigerator "

"If we don't have alternatives to fossil fuels, fuelling our future will smoke up, heat up, choke up this planet so much faster than when the world was round," he said.

Who will take the "green" leadership in the world?

He hopes that China, which he has visited frequently in the past 15 years, will do it; he admits the United States has failed to.

The United States should "lead by example," he said. "Otherwise, we have no credibility."

However, Friedman still believes that the rapid economic development in the past 30 years has forced China to try to turn itself into a green leader in the world.

What China must not do, he said, is follow in the footsteps of other developed countries by growing and polluting now and cleaning up later.

"We have never seen 1.3 billion people grow as fast in the history of the world. If you grow now and clean up later, there will be no 'later'," he said, noting that half of the rivers and much of the farmland in China are already polluted.

To be a "green" leader, he proposed that China stick to its motto, "don't bring your garbage," when it transfers technology from developed countries.

## Automobile and Transportation

### China to continue auto export expansion: Vice Premier

Nov 20 (Xinhua) - China will continue to expand auto export while strengthening the technology innovation and brand building, said Chinese Vice Premier Zeng Peiyan here on Sunday.

Chinese auto companies should bring in advanced technology and management expertise, enhance their research ability and build up their own brands, said Zeng when visiting the 2006 Beijing automotive exhibition.

China has grown into world third largest auto producer and second largest auto market. The exhibition opening at the weekend has seen an unprecedented presence of China's home-grown brands, roughly one third of of the 572 vehicles on show, according to the organizers.

Chinese brands currently account for about one quarter of China's auto sales. While consolidating their shares in low-end products, Chinese companies are moving into more lucrative markets now dominated by foreign carmakers.

Zeng said China should also develop more energy-saving, environmental-friendly cars, and new types of car fuels to alleviate the energy shortage.

The ongoing exhibition will be a platform to enhance exchange and cooperation in world auto industry, he said.

According to the organizers, the auto fair has attracted 1,500 companies from twenty countries and regions across the world. It is expected to draw 500,000 visitors.

### Market maneuvers in China's auto industry

Nov 20 (Chinadaily) - 1. Sizzling market growth

China's vehicle market has regained strong growth momentum this year after a slow pace the past two years, beating estimates of most industry analysts.

In the first three quarters of this year, sales of domestically-made vehicles grew by a quarter to 5.17 million units with car sales rocketing by more than 30 per cent. Full-year sales are expected to total 7 million units, enabling the country to dwarf Japan as the world's second biggest vehicle market.

Sales in 2005 and 2004 rose by 13.5 per cent and 15.5 per cent respectively. Both of the growth rates in 2003 and 2002 were above 30 per cent.

2. SAIC appointment

SAIC in June hired Phil Murtaugh, former chairman and chief executive officer of GM China Group, as its executive vice-president. Murtaugh, 51, takes the helm of SAIC's international operations.

The company expects Murtaugh, who has more-than-30-years experience in the automotive industry, to help it branch out in the overseas market. Murtaugh quit his post at GM China Group in April last year. He started at GM China Group in 2000. SAIC has a 10 per-cent stake in GM Daewoo

Auto & Technology Co and a 48.9-per cent share in Ssangyong Motors Co from South Korea. Last year, SAIC sold a total of 1.05 million vehicles.

Foreign brains like Murtaugh are badly needed for Chinese automakers planning to expand in the overseas market.

3. Import tariff dispute

China in August decided to postpone by two years a plan to impose high tariffs on some imported auto parts to help solve an auto trade dispute with the European Union (EU) and United States. The plan will not be implemented until July 1, 2008.

According to the delayed plan, imports of auto parts and components will be treated as built-up vehicle imports and be imposed with a tariff of 25 per cent if these auto parts and components consist of 60 per cent or more of a vehicle assembled in China. However, the EU, US and Canada jointly lodged a complaint against China with the World Trade Organization (WTO) in September. They claimed China's policy on auto parts and component imports violate its WTO commitments and demanded an investigation. A team was launched last month. But a spokesman from the Ministry of Commerce said China's plan did not violate WTO rules and is aimed at curbing tax evasion instead.

On July 1, China slashed tariffs on built-up vehicle imports to 25 per cent from 28 per cent and tariffs on imports of spare parts to 10 per cent from 13.8-16.4 per cent to complete its WTO commitments.

4. Staccato Mazda3 production

Mazda Motor's joint venture with parent Ford Motor and China's Chang'an Motor started to produce the Mazda3 compact sedan at the end of February this year. The model went on sale on March 11 through Mazda's joint venture with another Chinese automaker First Automotive Works Corp.

As a result of the manufacturing-sale separation which violated China's auto industry policy, production was halted on April 18. According to the policy, any carmaker in China must apply to regulators for approval if it wants to transfer the sales right of its products to other legal entities. To solve the problem, Mazda's venture with Ford and Chang'an will have a stake in the Japanese carmaker's sales venture with First Automotive under a four-party agreement reached earlier this year.

Mazda3 production was resumed on October 30, a Mazda spokesman said, without revealing other details, including when sales would restart and through what channel.

5. SAIC launches own brand

SAIC, the biggest Chinese carmaker, on October 24 launched its first brand car - the Roewe 750 - since 1993. The Roewe, developed by SAIC's technical centres in Shanghai and England, is based on the Rover 75 technology bought from collapsed British carmaker MG Rover.

As the partner of both Volkswagen and General Motors, the company plans to spend more than 10 billion yuan (US$1.26 billion) developing 30 models under its own nameplate from now to 2010. It aims to sell 200,000 of its own brand annually by 2010. SAIC is targeting China's medium-and-upper-end market with the Roewe. SAIC stopped producing its two marques - Shanghai and Phoenix - in 1993. The company now runs joint ventures with Volkswagen and GM to produce cars under the nameplates of the two global giants.

6. Tax cuts on small cars

The government on January 4 issued a notice to encourage the use of environmentally-friendly, low-emission cars. According to the notice, all restrictions on small cars must be lifted before the end of March.

China on April 1 raised consumption taxes on cars and sport utility vehicles with engine capacity larger than 2 litres to 9-20 per cent from 8 per cent. However, charges on vehicles with engine capacity between 1 and 1.5 litres was cut to 3 per cent from 5 per cent.

The two moves are to curb people in the oil-hungry nation from buying gasoline-guzzling vehicles to save energy and improve the environment. In China, auto consumption taxes are imposed on manufacturers instead of buyers. According to industry data,

7. Export push

China on August 16 named eight cities as national exporting bases of automobiles and spare parts. These cities include Changchun in Jilin Province, Shanghai, Tianjin and Chongqing Municipalities, Wuhan in Hubei Province, Xiamen in Fujian Province, Wuhu in Anhui Province and Taizhou in Zhejiang Province. The nation also named 160 producers from these cities as national automobile and spare part exporting enterprises.

Regulators said they will give these automakers favourable policies to further boost exports later this year or next year. According to a five-year plan formed by the government, China's exports of vehicles and spare parts will reach an estimated US$70 billion a year by 2010, up from US$19.7 billion last year.

In the first three quarters of this year, China's exports of vehicles and spare parts was valued at US$20.51 billion, surging 45.37 per cent from a year ago.

8. Hyundai JV sued

Beijing Hyundai, the Sino-Korean car joint venture, was sued on August 8 by 100 buyers of its Accent Subcompact car for alleged price fraud. The trial started on October 18 in Beijing.

The firm on March 16 launched three versions of the 1.4-litre Accent, retailing at 79,800 yuan (US$10,100), 87,800 yuan (US$11,100) and 102,800 yuan (US$13,000). A top executive of the firm said in an interview with a popular Chinese Internet portal that the prices of the Accent would not change "for at least two-and-a-half years."

However, it cut prices of two versions of the Accent by 8,000 yuan (US$1,000) on July 7, less than four months after its no-markdown promise. The 100 Accent owners demanded 8,000 yuan (US$1,000) each in compensation as well as a public apology from Beijing Hyundai. The lawsuit demonstrated that Chinese customers are sensitive to car prices.

9. VW sales boom again

German carmaker Volkswagen regained sales growth in China this year after consecutive tumbles over the past two years. The company sold 524,558 cars from January to September this year, up 28.7 per cent from last year.

The strong sales keep Volkswagen as the biggest player in China's passenger car market. Volkswagen controlled 17.5 per cent of the market. The group has been leading in the Chinese car market since the middle of the 1980s when it started to produce cars at a venture with SAIC.

10. Foray into US market

Nanjing Automobile Group, the partner of Italian carmaker Fiat Auto, announced in July it will build cars under the acquired British brand MG at a plant in Oklahoma in the United States in 2008.

This will make Nanjing Automobile the first Chinese automaker to produce cars in the United States, the world's biggest and most competitive car market. According to the company's plan, it will make a redesigned MG TF coupe in the Oklahoma factory. The plant will be the brand's third manufacturing

site in the world after its two in Longbridge, England, and Nanjing - capital city in East China's Jiangsu Province.

However, analysts are sceptical of the project as Nanjing Automobile has been seeing losses for many years and MG is a tiny-volume brand.

Nanjing Automobile last year paid 53 million British pounds (US$91.3 million) to buy the MG brand, the plant in Longbridge and Powertrain, the engine arm of MG Rover.

**Beijing auto show closes with record turnout**

Nov 28 (Xinhua) - The Beijing auto exhibition 2006 closed Monday with a record turnout of almost 600,000 visitors in 10 days, the organizers said.

Nearly 550,000 people visited the main venue at the China International Exhibition Center, while another 50,000 visited the auto parts show at the National Agricultural Exhibition Center.

The event, which has been held biennially since 1990, also drew 6,376 journalists, including 1,135 from outside China.

*INCREASING INTERNATIONAL INFLUENCE*

The rising importance of the Beijing auto show was reflected by the unprecedented presence of major international carmakers.

More than 1,500 businesses from over 20 countries and regions, including big names in the international auto industries, were represented.

Foreign carmakers brought two-thirds of the 572 cars to the show. Ten models, including Toyota's Corolla and Maybach's ultra-luxury 62S, made their global debuts in Beijing.

After years of dynamic growth, China is the world's second largest auto market after the United States.

Both its production and sales of automobiles are expected to surpass seven million this year, according to the latest estimate of the China Association of Automobile Manufacturers.

Though that is still less than half of the 16.5 million cars expected to be sold in the United States, China could overtake the U.S. as the world's largest carmaker in 10 years, Nick Reilly, General Motors Asia and Pacific head, told a Detroit newspaper.

*CHINESE BRANDS STEALS THE SHOW*

This year's Beijing auto show also saw an impressive turnout of home-grown brands, a reflection of their growing strength in the fast expanding auto market.

According to the organizers, Chinese brands accounted for one third of the vehicles on show, the most in the history of the event.

FAW, which produced China's first truck and car in the 1950s, brought 29 vehicles, including 19 of its joint venture brand partners such as Volkswagen and Toyota, and 10 of its own.

The most eye-catching is a new Red Flag (Hongqi) model dubbed HQ3. Using a 4.3 liter engine, it takes only 7.3 seconds for HQ3 to accelerate to 100 kilometers per hour.

The car is also equipped with a sophisticated infrared night vision system that can detect obstacles from 250 meters away.

Dongfeng Motor, another major Chinese manufacturer, came with 15 models, half of them Dongfeng's own brands. They include a full range of cars, multi-purpose vehicles, small utility vehicles, racing cars and hybrid sedans.

Geely, a minor Chinese carmaker which recently entered into agreement with the Manganese Bronze Holdings Plc. of the United Kingdom to produce London's iconic black cabs, is displaying over a dozen new models.

Also on show is Geely's first concept car, and another from its subsidiary, Shanghai Maple Automobile.

Other Chinese carmakers, the Shanghai Automotive Industry Corp., Great Wall, Chery and others all brought their Chinese brand models.

Chinese brands account for about a quarter of China's auto sales. While consolidating their share in low-end products, they are moving into more lucrative markets dominated by foreign carmakers.

**Produce green cars**

Nov 28 (Chinadaily) - The few hybrid and electric vehicles domestic carmakers brought to the Beijing Auto Show might have surprised many visitors. Now, young home-grown carmakers are confident and capable of embracing cutting-edge technologies.

However, a recently issued green products inventory for government procurement of cars indicates that green cars are not only for show.

As the Chinese Government adopts a more environmentally friendly procurement policy, domestic carmakers should see that going green is both a source of profit and a matter of survival.

The implementation of a green procurement policy will promote green manufacturing and green consumption. From January 1, 2007, the central and provincial-level governments have been asked to give priority to products proven to be environmentally friendly.

But of all the nine car brands the government listed for green procurement, none, unfortunately, are home-made. Why? Only seven joint ventures have obtained the first batch of green car certificates the China Quality Certification Centre issued to manufacturers of energy-saving and environmentally friendly cars.

As the world's third-biggest car market, China has provided a golden opportunity for domestic carmakers to prosper in recent years.

Latest statistics show that both China's car sales and production increased by more than a quarter in the first 10 months of this year over the same period last year. Local carmakers have captured about 27 per cent of the market with low-cost cars developed by themselves.

Domestic players can certainly take pride in their rising status in China's car market. But their recent success is still far from secure.

Their failure to obtain the "green car" certificates means not only loss of a significant section of the domestic market. Though private buyers have bought more than half of the country's cars, government procurement still accounts for a considerable proportion of domestic car consumption that no automaker can afford to ignore.

More important, it exposed their lack of preparation for the coming age of "green cars." Whether domestic carmakers can produce vehicles with superior performance in terms of saving energy and reducing harmful exhaust emissions will largely determine their future competitiveness with international auto giants.

At present, local carmakers can aggressively grab market share by cutting costs to woo domestic buyers. Nevertheless, the same strategy can hardly work when buyers become more demanding of quality and the country stricter on environmental standards for cars in coming years.

**Raise fuel efficiency**

Nov 14 (Chinadaily) - The publication of comprehensive fuel economy levels of more than 400 types of cars by the National Development and Reform Commission (NDRC) early this month surely embarrassed many carmakers.

In China, producers usually inform consumers only of the much lower constant-speed fuel economy of their cars a theoretical fuel efficiency level hard to achieve under actual driving conditions.

Consequently, the gap between the fuel economy data the NDRC and carmakers provide has invited fierce criticism from domestic media against the latter.

However, it is misleading to take the NDRC's new fuel economy list as proof of carmakers' dishonesty.

Failing to tell consumers the whole truth about their products is certainly not a desirable way to do business. But as long as the country's law does not make it compulsory to give all the fuel economy numbers collected from different tests, carmakers can choose to give consumers the performance data that most helps their sales.

The significance of the authorities' first attempt to publicize car fuel economy levels lies not in exposing the promotional gimmicks of carmakers, but in awakening the public to the country's average low fuel efficiency.

As illusions about the high fuel efficiency of their cars are replaced with a better grasp of actual fuel consumption, consumers may at least tighten their purse strings before buying a car. When fuel prices keep rising, it will only be at consumers' cost to ignore the difference between the theoretical fuel economy according to carmakers, and the actual fuel consumption of their cars.

It will be even better if the new fuel economy list can galvanize the consumers into joining forces with regulators to press carmakers to produce more energy-saving cars.

China's rapid economic development has seen it increasingly become a nation on wheels.

Latest statistics indicate that domestic sales of passenger vehicles soared by 40 per cent year-on-year to 3.04 million in the first 10 months of this year.

Cars currently guzzle more than three-fifths of China's total petrol output and one-fifth of its diesel output. As more and more Chinese families buy cars in coming years, it is estimated that the country's annual crude oil imports will grow to 190 million tons by 2010 from 123 million tons in 2004. Clearly, a higher fuel economy standard will be crucial to the country's preparedness for the growing demand of oil.

The average car fuel economy level in China today is still about 20 per cent higher than those in developed countries.

The Chinese Government has made it a top priority to cut the country's overall energy intensity by 20 per cent in five years beginning 2006. Further improvement of car fuel economy should definitely be part of the efforts to achieve that goal.

The car fuel economy list released by the NDRC can be used as a starting point to measure the mileage of how far carmakers have progressed in energy-saving.

**GM to build hybrid cars in China**

Nov 7 (AFP) - US auto giant General Motors announced a plan to build environmentally-friendly hybrid cars in China by 2008, while it paraded its latest hydrogen-powered vehicle before Chinese officials.

The hybrid would go into mass production at the Shanghai GM plant, a joint venture with

Shanghai Automotive Industry Corp, the company said in a press release.

"The GM Hybrid System is flexible and cost effective and is ideal for high volume global applications, which include its introduction in China in 2008," said Martin Murray, head of GM's Asia Pacific hybrid engineering.

The announcement was made as GM was parading a series of energy-saving cars, including the Saturn Vue hybrid and the Chevrolet Sequel hydrogen-powered fuel cell vehicle.

The release did not say which hybrid car would be built in China, but GM's hybrid system was currently under development with DaimlerChrysler and the BMW Group.

GM head Rick Wagoner also on Monday joined Shanghai Mayor Han Zheng in the first-ever drive in Asia of the Sequel, GM's hydrogen-powered vehicle that was rolled out for test drives in the United States last month.

"We believe fuel cell vehicles offer the best long-term solution for meeting the world's growing demand for automobiles in an economically and environmentally sustainable manner," Wagoner said.

"From a China and Asia Pacific perspective, development of world-class fuel cells and the associated infrastructure are key initiatives that need the support of industry, government and the academic community."

Hydrogen-powered cars are seen as vehicles of the future as they do not use gasoline and their only by-product is water vapor.

However the production and storage of hydrogen and the building of a hydrogen infrastructure of refueling stations could take decades and billions of dollars to build.

In the meantime, the hybrid vehicle, a car that uses both a combustion engine and electric motors for propulsion, is seen as an interim solution to the full development of a clean car.

Toyota Motor, the world's second biggest automaker after GM and a pioneer of environmentally friendly cars, began production in China of its popular Prius hybrid at the end of last year.

**Pursuing sustainable growth**

Nov 27 (Chinadaily) - With China's rapidly expanding automotive industry confronted with mounting environmental challenges, remaining environmentally conscious is something that enables GE to maintain its competitive edge over its counterparts in the country.

As a leading global supplier of high-tech plastic resin for a broad variety of industries including automotive, healthcare and others, and also being named as the largest business of the General Electric Company in China, GE Plastics spearheads efforts to provide environmentally responsible plastics to pursue sustainable growth.

The GE ecomagination products, a hybrid portfolio designed to respond to environmental concerns of customers, which was launched early this year, is a move to underscore GE's commitment to environmental protection.

Environmental friendliness and performance improvement are the dual focuses GE Plastics attaches to its products.

"A total of 17 per cent of our products can be called ecomagination products. And in terms of per unit revenue, we measure our success against less energy use and less green house emission," said Eric Herman, general manager of China GE Plastics, Automotive.

By bringing environmentally advanced technologies into the marketplace, GE Plastics creates huge opportunities for plastic resin, sheet and film, to serve a wide

range of industries and provides solutions to alleviate environmental stress.

Clean material is the first area that GE Plastics puts a premium on. GE's Lexan SLX Resin, an initiative product used to paint cars with a plastic film instead of having to spray paint on cars, helps to reduce harmful emissions associated with conventional paint. "The product is not only a paint replacement option but it also has a very good gloss level. It is also durable in many weather conditions," added the general manager.

Fuel consumption control is always a chronic headache harassing the car-related industry. To ease the dependence on petroleum for carmakers, GE Plastics produces light-weight plastic materials to cater to customers' needs on vehicles with better fuel efficiency via weight reduction.

"If you can reduce the weight by 10 per cent, you can reduce the fuel by seven per cent. Compared with traditional materials, with our materials supplied, there are tremendous opportunities to make weight reduction on cars," Herman told Environment China.

A case in point for weight-out material is GE's Flexible Noryl Resin, a material providing thinner coatings for wire and cable insulation. The thinner coatings can reduce cable weight by 25 per cent and thus enhance the potential fuel efficiency.

Energy saving effort is also extended to manufacturing since most of GE's plastic products are petroleum based. Valox iQ and Xenoy iQ, GE's two resin products derived from post consumer plastic waste, are offering excellent performance in consuming less energy and yielding less carbon dioxide in manufacturing process. It is estimated that 8.5 barrels of crude oil can be saved for the production of every 1,000 kilograms of resin.

According to Green Order, an environmental strategy firm that audited GE Valox resin claims, if GE's Valox iQ technology was used throughout the world, an annual reduction of 1.4 million metric tons of carbon dioxide emissions could be expected. This is an amount equivalent to the purification capacity of a forest as large as 650 square kilometers in area, twice as the area of Pudong New Area, and close to the size of 684 Shanghai Century Park.

With sales revenue exceeding 1 billion yuan (US$125 million) in China last year, GE Plastics has taken the leading position in China's market. With two compounding facilities in Nansha in Guangdong Province and the Pudong New Area in Shanghai, and also a film and sheet manufacturing plant in Shenzhen in Guangdong province, China has been a key growth engine and investment region for GE Plastics.

In 2003, GE Plastics opened the US$64-million China Technology Centre in Zhangjiang High-tech Park in Shanghai, one of its four global research and development facilities, whose staff are mainly Chinese people with PHD degrees. "It is GE's global expertise centre in Shanghai. It is really one of our global hubs to bring more technology to life," said Herman.

"The percentage of plastic parts has increased, because plastic parts provide various advantages and there is also a rising interest from Chinese automatic manufacturers to choose plastic materials,"

According to Herman, consumers must undergo a process to accept plastic materials. "A process, which is achieved by a good education, will tell consumers that plastic cars are more forgiving and better than steel."

Despite the fast development of China's automotive industry, soaring demand for oil caused by traditional car materials tends to impede sustainable growth in the long run. Lighter-weight materials will hence be favored by customers to tackle climbing fuel costs.

"We are not only working to apply raw materials to making high-quality products but also to cut green house emissions and to develop materials that can be recycled and are energy efficient. We give our customers a better environmental option. That's what we bring to the Chinese industry," Herman said.

## Oil and Gas

### Oil deals enhance China-Russia energy links

Nov 10 (Reuters) - Russian Prime Minister Mikhail Fradkov closed out a visit to China Friday that was highlighted by announcements of increased energy links between the two Asian powers.

Fradkov held talks with President Hu Jintao at the end of a two-day visit that marked the close of the promotional "Year of Russia in China," but that was overshadowed by an announcement from Russian oil exporter OAO Rosneft, which said it is ready to increase shipments to China by up to 65 percent next year.

But there was no word of progress on a planned pipeline to deliver Siberian crude.

Rosneft President Sergey Bogdanchikov said the company was ready to boost oil exports to China to 140 million barrels next year, up from an expected 85 million barrels this year.

The two sides have not signed a contract yet on increased supplies, Bogdanchikov, who was visiting Beijing with Fradkov, said at a news conference.

Hu praised Fradkov's visit, saying it would promote better links between China and Russia, the world's second-biggest supplier of oil after Saudi Arabia.

"I believe that your visit will deepen cooperation between the two countries and push forward our strategic partnership," Hu said.

"Russian President Vladimr Putin has asked me to pass his regards to you and tell you that he is very much awaiting the meeting with you in the middle of the month in Hanoi," Fradkov said.

Putin and Hu will both be at the November 18-19 Asia-Pacific Economic Cooperation summit in Hanoi.

The oil deal on Friday comes a day after Bogdanchikov said Rosneft - which accounts for about 70 percent of Russia's oil exports to China - and China National Petroleum Corp. had agreed to build a refinery in China.

The agreement extends a partnership between Rosneft and CNPC, both state-owned, that includes earlier plans to open filling stations in China and to produce oil in Russia.

The refinery will have an annual capacity of 70 million barrels.

The deal marks the latest tie-up between the companies after CNPC bought a US$500 million slice of Rosneft's US$10.4 billion midyear initial public offering.

Officials from both countries are projecting bilateral trade to hit US$60-US$80 billion by 2010. Bilateral trade totaled US$29.1 billion (euro22.78 billion) in 2005, and had reached US$24.64 billion (euro19.29 billion) in the first nine months of this year, up almost 20 percent from the same period a year earlier.

Besides oil, China buys Russian weapons, while Russia's imports of Chinese-made appliances and other consumer goods have been rising.

*Upgrade strategic co-op*

China and Russia vowed to upgrade strategic cooperation in all fields, according to a press statement issued on Friday.

The statement said China and Russia agreed that the strategic and cooperative partnership had developed rapidly, and mutual trust had reached an unprecedented height. Cooperation in all fields benefits the two peoples and contributes to world peace and stability, it said.

It said the establishment of the sub-committees on environmental protection and aviation ensured regular meetings between the prime ministers of China and Russia.

Chinese Premier Wen Jiabao and visiting Russian Prime Minister Mikhail Yefimovich Fradkov held their 11th regular meeting on November 9.

Chinese President Hu Jintao and Wu Bangguo, chairman of the Standing Committee of the National People's Congress, met with Fradkov.

Seventeen documents have been signed to promote cooperation on trade, nuclear power, education and other fields during Fradkov's visit to China.

Wen and Fradkov presented the closing ceremony of the "Year of Russia".

Both agreed that the "Year of Russia" in 2006 and the "Year of China" in 2007 will have profound significance in furthering relations, said the statement.

It said the 12th meeting between the two prime ministers will be held in 2007.

**Calls for flexible gas price**

Nov 10 (Chinadaily) - China should adopt a more flexible mechanism for pricing to ensure healthier profits for the industry, government officials and company leaders said yesterday.

"The pricing mechanism for natural gas in China is subject to further reform so that it can go along with its international counterparts," said Wang Jing, deputy head of the division of oil & gas of the energy bureau under the National Development and Reform Commission (NDRC). "The specific price for natural gas should be calculated on the basis of cost plus adequate income for gas suppliers."

"Only in this way can the healthy development of the segment be guaranteed," Wang said at a China Gas Summit held in Beijing yesterday. "Of course, it will be a gradual process."

Currently the price is set by the government, not the market.

Senior managers from major Chinese oil and gas makers share the view that the system should change for the good of future sales.

"A scientific pricing mechanism should be established to make the pricing of natural gas more market-oriented," said Liu Enxue, deputy manager of Sinopec Natural Gas Co Ltd. "The government should set up a guiding price just as a reference. An agile and flexible pricing mechanism should be adopted in the market, especially at the micro-level."

The "micro-level" refers to the retail segment involving end users such as families and individual enterprises using natural gas.

China's major oil and gas suppliers, PetroChina, Sinopec and China National Offshore Oil Corp, are trying to push up the price of natural gas for local end users, claiming the companies can barely profit on the current price.

"Selling natural gas on the present price barely covers the cost of exploration, production and transportation for domestic gas producers. Therefore, we suppose price hiking is necessary," said Chen Yongwu, a senior official with China National Petroleum Corp.

Chen did not say how much the hike will or should be.

Wang Zehou, deputy director of natural gas marketing at Natural Gas & Pipeline Company under PetroChina Company Ltd, commented that a balance should be figured out between buyers and suppliers regarding the pricing of natural gas.

"If the price increases too quickly, then the demand will drop. Therefore, seeking a balance between supply and demand is the key," Wang said.

Regarding the pricing issue, Stuart R. Traver, senior manager of Gaffney, Cline & Associates (Consultants) Pte Ltd, suggested Chinese authorities set up an energy price benchmark similar to that of Japan to secure gas supply and demand at a consistent price.

"The price for natural gas is set in China. But there may be demand for a higher price," Traver said.

What developing countries like China lack is a spot market where multi-buyers and sellers exist, Traver said. This is the prerequisite for a market-oriented price mechanism for natural gas and oil products.

Wang Jing of the NDRC foresees robust demand for natural gas in China in the next several years. During the country's 11th Five-Year Plan (2006-10), around 100 billion cubic metres of natural gas will be needed, according to the NDRC official.

**Heavy oil to help lighten energy load**

Nov 14 (Chinadaily) - Oil producers will give priority to heavy oil exploration and production in the next decade to meet China's increasing energy needs.

"As prices for conventional oil products will remain high in the long run, heavy oil and alternative oil products will unavoidably become part of our energy segment in the near future," Zhang Fengjiu, deputy chief engineer of China National Offshore Oil Company (CNOOC), told China Daily yesterday at the first World Heavy Oil Conference.

Heavy oil a catch-all name for oil shale, oil sand and natural asphalt and natural gas hydrate are becoming increasingly important substitutes for conventional energy resources worldwide.

Zhang said that heavy oil production will hold a dominant position in his firm's business. "By 2010, the daily production of heavy oil will surge to 500,000 barrels from the current 200,000," Zhang said, adding that heavy oil will account for 60 per cent of CNOOC's total production then.

Jia Chengzao, vice-president of PetroChina, said his company is also interested in tapping heavy oil resources. But he said it is still too early to make any announcement.

As the cost of heavy oil exploration and production is high, Jia called for more government policy support.

Bob Lockwood, president and chief executive officer of Cambridge Energy Research Associates, based near Boston, Massachusetts, said China National Petroleum Corporation (CNPC), PetroChina's parent company, is also targeting global heavy oil resources by working closely with his organization.

"We have hammered out a memorandum of understanding (MOU) with CNPC, mainly studying options of bringing more heavy oil resources from Canada to China," Lockwood said. "I believe the MOU can expand beyond that scope to joint research on technology innovation and investment options."

CNPC and the government of the Canadian province of Alberta initiated the four-day global heavy oil conference, which opened on Sunday. Canada is rich in heavy oil.

Ma Kai, head of the National Development and Reform Commission, said at the opening of the conference: "The government should encourage and support the development of heavy oil, in line with its 11th Five-Year Plan (2006-10)."

Unconventional forms of oil and gas, such as heavy oil, are important to China's energy industry, according to the 11th Five-Year Plan. Currently, heavy oil accounts for 20 per cent of China's total oil reserves, said Ma, the top economic planner.

**CNOOC plans to import 25m tons of LNG by 2010**

Nov 11 (Xinhua) - China National Offshore Oil Corporation (CNOOC) will import 25 million tons of liquefied natural gas (LNG) annually by 2010, said a senior executive with CNOOC Gas and Power Limited on Friday.

Liu Liming, Vice General Executive Manager with CNOOC Gas and Power Limited, said at the China Gas Summit that his company is still seeking partners to supply LNG for CNOOC's fourth LNG terminal in East China's Zhejiang Province.

"We have had talks with several possible partners including enterprises from Qatar and Indonesia," said Liu.

CNOOC Gas and Power Limited is a wholly owned company of CNOOC, the third largest oil producer of the country.

CNOOC's LNG terminal in Shenzhen of South China's Guangdong Province was put into production in June of this year. The terminal, supplied by natural gas from Australia, is also the first LNG terminal in China.

CNOOC has signed long-term LNG supply contracts with Indonesia for its terminal in Fujian Province which is under construction and with Petronas of Malaysia for the terminal in Shanghai.

Some of the LNG will be used for power generation, said Liu, adding that natural-gas fueled power generation could reach 9.16 million kilowatts by 2010.

CNOOC now has five natural gas power generation projects, in China's power-hungry regions in the east and in the south, that are designed to be fueled imported LNG projects or offshore natural gas fields.

China now have 23 natural gas power generation projects with a total installed capacity of 18.37 million kilowatts.

By 2020, natural gas generated electricity will account for 6.7 percent of the country's total, said Liu.

However, considering the high price of natural gas on the international market, China has decided to adopt a prudent strategy in developing natural gas power generation over the next five year.

Liu hopes the development of natural-gas power generation will continue in a proper and moderate way as it will promote the construction of infrastructure and accelerate the development of China's natural gas market, he said.

**CNPC goes clean in Sichuan**

Nov 21 (Chinadaily) - China's largest oil and gas producer, China National Petroleum Corp (CNPC), unveiled a clean energy project in Sichuan Province yesterday. The company said it aims to produce 100,000 metric tons of bio-diesel and 600,000 tons of ethanol.

CNPC inked a deal with the Sichuan provincial government to set up the bio-fuel base in Western China, it said in a statement. The project is based on bio-fuel technology co-operation between CNPC and four global energy companies, and comes one year into the country's 11th Five-Year Plan (2006-10), which calls for major cuts in pollution.

The oil firm did not name the four partners, only stating the project is designed to bridge the gap between energy demand and supply in China and make Sichuan a role model in clean energy production and consumption.

CNPC is making the move to invest in the future and relieve pressure on China's tightened energy supply, said a senior analyst from the National Development and Reform Commission (NDRC), China's top economic planner.

"It is a wise move for oil giants like CNPC and Sinopec to gear up preparation for future business development by investing in renewable energy such as bio-fuel," the expert, who went by the name Su, said.

Su pointed out that at the present stage, the development of bio-diesel is still far from profitable, given hefty costs and technological complexity.

"Also, capacity cannot be raised substantially in the short term, because of the lack of raw material," Su added.

**CNOOC discovers new gas reserve in Bohai Bay**

Nov 11 (Xinhua) - China National Offshore Oil Company Limited (CNOOC Ltd.) announced Friday it discovered a new natural gas reserve in Bohai Bay capable of producing 11.7 million cubic feet of gas per day.

"The discovery marks a breakthrough in the exploration in lithologic traps, "said Zhu Weilin, vice president of the company and general manager of its exploration department.

"The new exploration area will be of strategic significance to the company's reserve growth," he said.

The Jinzhou (JZ) 31-6-1 well was drilled on Structure JZ 31-6, to a total depth of 2,305 meters, in the sea area with an average water depth of 28 meters.

Zhu said the company is making appraisal of the Structure JZ 31-6 to determine its reserve scale and commercial value.

Incorporated in Hong Kong, CNOOC Ltd. is a 70.64 percent held subsidiary of the China National Offshore Oil Corporation (CNOOC), China's largest offshore oil and gas producer.

As the third largest oil producer of China, CNOOC produced 81.7 million barrel oil equivalent in the first half, up 7.4 percent from the same period of last year.

**Sinopec works for sustainability**

Nov 7 (Chinadaily) - Sinopec, a key player in China's petrochemical sector, has been stepping up efforts in the battle for energy security and sustainable development. The company is ranked 23rd on the Fortune Global 500 list this year.

According to Wang Jiming, honorary chairman of the 29th China Daily CEO Roundtable, Sinopec Corp adviser and director of the Sinopec Science & Technology Committee, Sinopec has been following the "scientific approach" to sustainable development by focusing on the structural adjustment of power plants, technological upgrades, productive capacity expansion and reduction of energy consumption.

Structural adjustment

Structural adjustment measures have included enlarging refineries and chemical plants in order to increase productivity and efficiency. The number of 10 million-metric-ton (mm) capacity refineries increased from five to nine between 2000 and 2005, and large 1 mm-ton capacity ethylene plants are slated for construction near Bohai Bay, the Pearl River Delta and Northwest China. As

much as 16.2 mm tons worth of capacity of inefficient refining facilities were closed down. Internal restructuring of the refineries, including the optimization of product mix and geographic location, has increased efficiency.

Sinopec also stepped up its R&D investments, which has led to the patenting of new energy conservation technologies such as heavy oil FCC and improved hydro-treatment. Consequently, energy consumption was cut by 19 per cent for refining and by 14 per cent per ton of ethylene.

The amount of freshwater used to process a ton of crude oil dropped by 62 per cent, and 1.855 billion tons of freshwater equivalent to 1.5 times the industry's total freshwater consumption in 2005 was saved over the last five years, bringing China one step closer to international energy efficiency and environmental conservation standards.

Technological solutions

Technologically speaking, crude oil is being used more effectively in cleaner production processes. During the 10th Five-Year Plan period, standard coal consumption per 10,000 yuan was reduced from 4.06 tons to 3.46 tons, saving 20 mm tons of standard coal annually. Recycling technologies became more advanced, especially in the treatment and recycling of wastewater.

Since leaded petrol production came to a halt in 1999, 95 per cent of smoke flares have been put out and China's CO2 emissions dropped by 4 mm tons a year. Oil was replaced by coke, coal and natural gas, and an investment of 40 billion yuan was channelled towards the development of alternative renewable energies over the last five years.

Getting results

Sinopec's efforts produced promising results: Between 1998 and 2005, overall industry output increased by 135 per cent while the amount of COD in wastewater dropped 34.8 per cent, waste reuse output increased by 96.6 per cent and fixed investment in environmental protection infrastructure increased by 100.3 per cent.

However, the great progress made in China's energy industry development is offset by an even greater energy demand. Review of the 10th Five-Year Plan has shown the current growth and energy pattern to be unsustainable, raising the need to adopt a stringent policy of sustainable development in the 11th Five-Year Plan.

If immediate and persistent efforts are not made to balance environmental protection and economic growth, the toll could be a drastic slowdown of China's economic growth and an impending threat to global energy security.

## Climate Change and Air Pollution

### Tax policy useful to tackle environment

Nov 22 (Chinadaily) - "Sustainable development" refers to the development model based on harmony between humanity's economic activities and nature. It also means that development today should not be achieved at the cost of later generations. This means harmony between the interests of people today and those of people in the future.

One of the most important attributes of sustainable development, therefore, is the cyclic use of resources and the benign cycles in which the environment functions.

Taxation, among other things, is an important means indispensable to sustainable development. This is because environmental pollution, which drags most heavily at sustainable development, makes society pay much more dearly than individual polluting enterprises whose waste discharges contaminate the ecological system.

There are two options to redress the situation. First, the government imposes stricter control on the polluters. Second, taxation measures are applied to make polluting enterprises pay more for the contamination they cause.

To impose restraining rules and regulations on polluters, however, is highly expensive because relevant government departments have to get comprehensive knowledge on details of production means and technologies in polluting enterprises, which are distributed widely across various sectors, before they can work out the pollution-restraining rules.

Taxation, however, is a market-oriented leverage, which encourages or discourages economic entities to do something or not to do something and therefore constitutes the most effective means.

Taxation levers can increase polluters' production costs. In pursuit of the largest possible profits, enterprises, in the face of possible levies on pollution, have to adopt advanced technologies to reduce energy consumption and install waste-treatment equipment.

On the one hand, taxation works to raise productivity and bring about more efficient use of resources while reducing pollution. On the other hand, income acquired from taxes levied on polluters can be channelled into environmental-protection undertakings. In addition, preferential tax treatment can be extended to those enterprises engaged in production that facilitates sustainable development.

Development experience shows that free-of-charge use of the ecological system has to be reined in when economic growth reaches a certain height. In this scenario, the growth model has to be transformed to better handle the relationship between man and nature and between economic development and environmental protection.

Although some tax policies that favour the development of a cyclic economy have already been put in place in China, many deficiencies exist.

To begin with, the existing preferential taxes in this regard are focused on "lower-stream" pollution treatment rather than "upper-stream" prevention. In addition, the "reuse" principle is largely side-tracked.

Second, the taxes involving a cyclic economy are not evenly enforced across various manufacturing sectors. In some cases, enforcement of these tax policies is lax or worse, not carried out at all. All this is detrimental to saving resources and protecting the environment.

Third, the number of taxes involving environmental protection is very limited and specialized taxes oriented to protecting the environment are lacking. As a result, taxation's role in exercising restraints on pollution is weakened.

Fourth, provisions on environmental protection in the existing environmental pollution-oriented taxes leave many situations and factors uncovered.

Fifth, preferential treatment offered by taxes is of the one-for-all type, lacking flexibility and clear aims in dealing with different situations.

Sixth, the taxes levied on polluters are rather low and are based on information that is now outdated. In addition, the standards of levies vary from one pollutant to another, creating chaotic situations.

All these contribute to the fact that high resource consumption and worsening pollution are not effectively redressed.

Many enterprises see high investment returns because they sell their products for high prices, buy resources at low prices and use the ecological system free of charge, among other factors such as low labour costs. Or, put in a different way, their profits

are acquired at the expense of the interests of the State and the public.

Have a look at the most profitable players the majority are either heavy polluters or monopolizing entities.

Bringing down consumption of resources and energy, therefore, becomes extremely difficult.

Figures released by the National Bureau of Statistics show that energy consumption in the petrochemical sector rose 8.7 per cent in the first half of this year; in the coal mining industry it increased 5.5 per cent; consumption was up 0.8 per cent in the power generation sector; and it rose 0.4 per cent in the non-ferrous metals industry.

In the same period, energy consumption dropped 1.2 per cent in the steel and iron industry, 4.5 per cent in the building materials sector, 5 per cent in the chemical industry and 5.5 per cent in the textile sector.

We can see from the figures that energy consumption went up in the industries that are either monopolizing by nature, or that see weak competition.

By contrast, energy consumption went down in those sectors where fierce competition is taking place.

When energy consumption goes a little bit higher, it has a very insignificant impact on the rising profits of the monopolizing industries like the petrochemical sector for example. By contrast, efforts to bring down energy consumption need a great deal of money and involve technical risks.

Under such circumstances, individual players opt for increasing investment to see good economic results while brushing aside their social responsibilities.

The chemical and textile industries saw the sharpest energy-consumption drop in the first half of this year. Why? Cut-throat competition is going on in these sectors and their profits are rather low.

For them, the prices of their raw materials keep rising as a result of oil price hikes but their finished products go into the market only to run into fierce competition from their peers. In view of this, they can do nothing but cut the products' costs by saving energy and resources. This is the only way out.

By all accounts, the conclusion can be reached that the taxation leverage, which is easily applied, works promptly and offers an efficient way to redress the situation where resource prices are low and the ecological system is used for free.

The author is an economist with the State Information Centre

**Green impact 'ignored by media'**

Nov 13 (Chinadaily) - The Western media have neglected the positive impact China has on the environment outside the country, according to a report released by a high-profile think tank.

The report "Review and Perspective of the Environment and Development of China" was presented by a special task force of the China Council for International Co-operation on Environment and Development (CCICED) at its annual meeting over the weekend. The task force consists of leading experts from home and abroad on global environmental and affiliated sectors.

"Too much stress on the negative environmental externality will limit China's rights to development," the report said.

Since China's trade pattern is goods dominant, the result is often that products are exported while pollutants are left over. China is more affected by negative environmental impact whereas the positive environmental benefits it brings about to other countries are almost ignored, it said.

The report said that imports of wastes used for raw materials such as steel scrap and waste paper have been on the rise in recent years. The amount of such waste totalled

33.08 million tons in 2004, a seven-fold increase from 4.58 million tons in 1996.

"China is the major venue of resource consumption and pollution as well as the main victim in the current international economic and trade pattern," it said.

The report suggests that when trade between China and its partners exerts an environmental impact, the responsibility should be borne by all parties, including manufacturers, traders and consumers in the product chain.

For example, it has been alleged that China poses a threat to tropical forests by importing timber from Southeast Asian countries. But 70 per cent of the timber is made into furniture and exported to the United States and European Union countries.

China's environmental impact on Southeast Asia is far more exaggerated than the economic benefits it brings to the region, the report noted.

"China has been playing its role as a global workshop in the past two decades," said Shen Guofang, vice-president of the Chinese Academy of Engineering and core expert of the CCICED. "We import the raw material, produce, send the products abroad and keep the waste and pollution ourselves."

The situation is worsening as some heavily-polluting industries, like iron and steel, construction materials and cement, have been moved from Europe, the United States and Japan.

"The shift of industry is also the shift of global pollutants," Shen said. "While they have less environmental pressure, China has more.

"It is unfair to turn a blind eye to China's huge efforts in afforestation, water purification and emission reduction while stressing only the negative impact on the world," he said.

Environment situation at 'critical point'

The environment situation in the country is reaching a "critical point," the head of the environmental watchdog said over the weekend.

"More and more environmental problems are beginning to pop up," Zhou Shengxian, director of the State Environmental Protection Administration (SEPA), told the annual meeting of the China Council for International Co-operation on Environment and Development (CCICED).

"In some places, environmental problems have affected people's health and social stability; and damaged our international image."

More than half of the country's rivers are severely polluted, and about a third of the territory affected by acid rain, Zhou noted.

Established in 1992, CCICED consists of leading domestic and overseas environmental experts and has been successful in advising high-level officials and assisting decision-makers to better understand the links between environmental protection and economic development.

To meet energy consumption targets, Lu Zhongwu, an academic at the Chinese Academy of Engineering, advised a careful scan of GDP growth goals set by local governments.

The central government has set a target of reducing energy consumption per unit of GDP by 20 per cent and cut major pollutants by 10 per cent by 2010. Many local governments have set double-digit growth targets, much higher than the country's projected 7.5 per cent in the 11th Five-Year Plan (2006-10).

CCICED said SEPA does not have sufficient administrative authority in policy planning, implementation and co-ordination

with related agencies; and urged the government to upgrade the watchdog to cabinet level.

**Nation takes steps to cut emissions:expert**

Nov 11 (Chinadaily) - China has taken active steps to cut carbon dioxide (CO2) emissions, according to a climate change expert.

Xu Huaqing, director of the Energy Research Institute at the National Development and Reform Commission (NDRC), made the comments in an interview on Thursday.

A recent report from the International Energy Agency (IEA) said by 2009 China would surpass the United States to be the top emitter of CO2. The previous forecast predicted this would happen in 2020.

"It is not surprising given China's growing dependence on coal consumption, driven by rapid economic growth over the past years," Xu said.

The IEA conclusion was based on two assumptions that by 2009 CO2 emissions from burning fossil fuels in the US would hold steady and that China's energy consumption structure would not change dramatically before then.

China is expected to consume the equivalent of 2.5 billion tons of coal in 2009, which will release about 5.8 billion tons of CO2 under the current calculation of CO2 emission per unit of primary energy. The CO2 emissions will be equivalent to the amount the United States released in 2004, Xu said.

With a population five times that of the United States, China has a per-capita CO2 emission that is much lower than those of developed countries.

But with its CO2 emissions continuing to increase, China will face great pressure from the international community to make a commitment to reduce emissions.

"Who will become No 1 and when is not the biggest concern here," said Zhang Jianyu, a visiting scholar at Tsinghua University.

"But what's rather alarming is that neither country has set a firm cap on their emissions. Both countries are large emitters and must do something."

Although the country has not set a firm cap and a clear target on CO2 emissions, it has put in place a series of measures to help mitigate worldwide climate change.

From 1990 to 2005, China's energy consumption per 10,000 yuan (US$1,250) of gross domestic product (GDP) went down from 2.68 tons of coal equivalent to 1.43 tons.

An accumulated 800 million tons of coal equivalent were reduced by economic structure adjustment and energy efficiency promotion. Based on the emissions ratio of 2.3 tons of CO2 released from 1 ton of standard coal in 1994, it means China cut 1.8 billion tons of CO2 emissions.

Last year, the use of renewable energy, including hydroelectricity, in China was equal to 166 million tons of coal equivalent, accounting for 7.5 per cent of China's total energy consumption. That equals 380 million tons of CO2 emissions saved, Xu said.

China has also taken an active role in the Clean Development Mechanism under the Kyoto Protocol to reduce CO2 emissions with the co-operation of industrialized countries.

Environmental officials from around the world began meeting on Monday in Nairobi, Kenya to discuss a new agreement after the Kyoto Protocol. The forum on global warming continues until next Friday.

**Global warming wake-up**

Nov 20 (Chinadaily) - Talks on global climate change have proven to be no less thorny than World Trade Organization negotiations.

As the marathon UN Framework Convention on Climate Change wound up in Nairobi, Kenya, the world has seen little progress in reaching a workable consensus on how to hold back the greenhouse gas emissions.

Admittedly, the two weeks of talks have indeed produced something meaningful. The conference agreed, for example, to a review of the Kyoto Protocol in 2008 for possible deeper gas emission cuts by rich nations beyond 2012 and steps by developing countries to apply brake on emissions.

It was also agreed that Africa, as the poorest economy, should receive help to cope with challenges as a result of a climate change, such as drought, grain production cuts, storms, disease and rising sea level. Green technologies, such as wind or solar power, are expected to be promoted in the continent.

All this, however, pales in light of the urgent need to stop the worsening trend in global warming. It is so obvious that there is no need to cite statistics. The vast gap in views among different countries on how to balance their interest also needs to be addressed.

It may be a good sign, ironically, that people are still arguing, because argument may be a prelude to consensus and action.

As usual, the world is divided into two general blocs regarding this issue: developed countries that are being urged to take a lead in bolder cutbacks in gas emissions and the developing countries that are expected to play a larger role in this respect.

Their goals are the same, but they are divided in action. The Nairobi conference has been dogged by a slew of disputes, including when the negotiations on the post-Kyoto carbon reductions should formally start or end.

Developed countries, which are more financially capable of affording the cuts, should set an example for the much less affluent developing nations. But sadly, the United States, the biggest source of greenhouse gases, rejects emission caps under the UN Kyoto Protocol, seeing it as an economic straitjacket.

Such an attitude will discourage participation by developing countries in this global cause.

It will dent the confidence in the resolve of the developed countries to abide by their professed commitment to lead the fight against global warming.

The developing economic powerhouses, such as China and India, are already adopting clean energy facilities to offset the climate externalities of economic growth. They need to do more, but to that end, they need more time and support. Pointing fingers of blame at these developing countries does nothing to improve the situations.

**Australia to push for 'New Kyoto' in Asia**

Nov 3 (Chinadaily) - After repeatedly blocking domestic carbon trading, Australia said yesterday it would now push for Asia-wide emissions trading to combat global warming as part of a planned "new-Kyoto" pact.

The turn-around by Australia, which refuses to sign the Kyoto Protocol to reduce greenhouse gases, comes as an opinion poll showed most Australians believe the government should sign Kyoto.

Environment Minister Ian Campbell said Australia wanted to forge a "New Kyoto" out of a six-nation alliance of the world's biggest greenhouse gases emitters the United States, China, India, Japan, Australia and South Korea.

"Working within our region is a good place to start," Campbell said, adding an Asia-wide scheme would be a stepping stone to a comprehensive global carbon trading framework.

"A very clear vision for Australia being part of a constructive post-Kyoto, beyond-Kyoto, framework, is something that we do need to get everybody in," Campbell told Australian Broadcasting Corp radio.

Professor Warwick McKibbin, a central bank board member, said a global carbon trade framework would never occur unless Australia and other developed nations took the lead.

"You need to start at the national level and move out from there," McKibbin told the Australian Financial Review.

A British report on climate change this week warned of an environment-wrought global depression unless action was taken now to combat global warming.

Using calculations in the British report, Australia exported US$52 billion worth of climate change every year in the form of coal exports totalling 233 million tons, or nearly a third of the world total.

A Newspoll done for environmental groups, including Greenpeace, showed 79 per cent of Australians wanted their conservative government to sign Kyoto. Nine in 10 people wanted a shift from coal-fired power to renewable energy.

Professor Tony Owen, from the Centre for Energy and Environmental Markets at the University of NSW, said the government appeared to have been spurred into action on climate change by fast-shifting public opinion.

"A cynical person might suggest that since it's highly unlikely that a number of these (Asian alliance) countries are going to join a carbon-trade scheme, this is a way the Australians can say 'well, we tried'," he said.

Kyoto obliges about 40 nations to cut emissions by at least 5.2 per cent below 1990 levels by 2008-12. Australia negotiated a rise in emissions, setting a Kyoto target of limiting emissions to 108 per cent of 1990 levels.

Australia is already feeling the brunt of global warming with the worst drought in 100 years eating into economic growth.

But Prime Minister John Howard said signing Kyoto would achieve nothing for Australia, which is the world's 10th largest emitter of greenhouse gases.

**'Green' drive goes beyond Olympics**

Nov 16 (Chinadaily) - I had no time to venture into downtown Beijing from where I live and work near the northern Fourth Ring Road in early November, when Chinese and African leaders met at the forum to discuss further co-operation.

During the forum a few hundred thousand private and government cars refrained from going into the city streets. Those who drove in the downtown area couldn't help but marvel at the light traffic they enjoyed.

Traffic became the talk of the town, and most people are convinced that the effective traffic management, which won public support, was a successful rehearsal for the coming 2008 Olympic Games in Beijing.

It is also a prelude to fulfil the promise we made to the world: The Games will be a "green," or environmentally friendly, sports gala.

But I believe we should also think and plan far beyond the Olympics. The traffic congestion and exhaust emissions as well as smoggy weather are not improving our lives and work.

We rejoice our success in getting several hundred million people out of poverty and now most people have to work even harder so that they can live a comfortable life.

We have also increased our dependence on fossil fuels. We have not worked hard enough at a recyclable economy and environmental protection.

A lot of people, from home and overseas, have been sounding alarms to a possible bleak future when the earth's fossil fuels run out and the alternatives do not work to satisfy our insatiable demand.

In fact, over the past week, I have personally heard a few prominent Americans such as David Brady from the Hoover Institution at Stanford University and Thomas Friedman, New York Times columnist discussing the challenges we Chinese must face with our increased affluence, urbanization and gross domestic product (GDP).

We may not feel comfortable being admonished by other people, especially Americans, whose country consumes, imports and stores more fossil fuels than any other country in the world.

What Brady and Friedman may not be aware of is that many ordinary Chinese are taking ingenious action to save water, electricity and fossil fuels. Quite a few villages in the suburbs of Beijing have made use of solar or wind energy and bio-fuels to cook, heat water and heat their homes.

And the government is starting to implement a "green" GDP drive to evaluate official performances by how much they can reduce consumption of energy and raw materials and pollution in pushing higher developmental figures.

To ease the traffic and encourage more people to take public transport, several subway lines are under construction, snaking underneath the urban centre of Beijing.

The Fifth Line goes right by where I live. When this line opens, I don't think my family will ever drive to the Wangfujing shopping area downtown, where we go now and then.

Many projects or programmes are either in the works or being planned, but this does not mean we are doing enough.

We have to face the facts that our rivers are still polluted and the sky is often grey. We still breathe in dirty air and drink and eat things that we fear are contaminated.

We can no longer tolerate our slackness in energy-saving and pollution control, because waste of raw materials and energy will not sustain the improved life we seem to be enjoying today and may well jeopardize the lives of not only ours but also our children's and grand-children's.

**500 firms sign Clean Air Charter**

Nov 28 (HK edition) - As many as 500 companies in Hong Kong and the government signed a Clean Air Charter vowing to work for environmental protection at the Business Clear Air Conference yesterday.

Officiating at the charter's signing ceremony, Chief Executive Donald Tsang signed on behalf of the government, which is the largest employer in the SAR.

If duly followed, the charter will bring significant improvement to Hong Kong's air quality, he said, adding the Council for Sustainable Development would soon conduct a study on measures to tackle the air problem.

Around 500 organizations and companies signed the charter, listing six areas in which

they could take measures to improve air quality.

The Clean Air Charter requires signatories to identify relevant standards of emission, review their own performance relative to those standards, and make solid plans to meet them on a voluntary basis.

It also demands continuous monitors for large and medium emitters and regular disclosure of their total emissions, energy and fuel use.

While stressing the need to tackle air pollution, Tsang said it was necessary to make a balance.

"We are serious about doing the best we can," Tsang said. "In addition, we will continue to institute policies, review air quality objectives, and introduce legislation on pollution control."

Special measures like cutting air-conditioning by half at home and office, encouraging car pooling, using only public transport, flexible working hours to smooth out peak traffic and reducing the number of vehicles on streets would be taken to tackle the problem.

"The Council for Sustainable Development will soon conduct an exercise to engage the public and forge some consensus on whether such measures should be adopted in Hong Kong on days when the air pollution index is expected to be high," the CE said.

Denying that Hong Kong's investment environment was affected because of poor air quality, the chief executive said the number of overseas companies with regional operations in Hong Kong had grown by 50 per cent since 1997.

"The Action Blue Sky campaign that I launched this summer has an important mission. It is to draw the attention of people from all walks of life to the air pollution problem, and to make them aware that the solution requires action and participation from themselves," he said.

Some people have urged the government to adopt immediately the World Health Organization's latest air quality guidelines published last month. But "the WHO recognizes, and I quote, 'that when formulating policy targets, governments should consider their own circumstances carefully before adopting the guidelines directly as legally based standards'," he said.

"It is in this spirit that we recently announced our plan to commission a comprehensive 18-month study on Hong Kong's air quality objectives in early 2007 in the light of what the WHO has recommended," he said.

The study will be overseen by a representative and authoritative steering committee. The public will be engaged to devise a practicable long-term air quality management strategy.

Admitting that the response was not satisfactory, Hong Kong General Chamber of Commerce chairman David Eldon said: "When you consider that the business sector as a whole has been one of the more vocal commentators about Hong Kong's poor air quality, when you consider these and other factors, you realize rather quickly that if we hope to make a real difference, then this `pretty good' response rate to the Clean Air Charter is, in fact, pretty bad."

He said some businesses thought there was little they could do. But in reality, business must play a major role, and that Hong Kong's reputation could be affected in the Olympic events in 2008.

"The reality is, however, that if we start needing floodlights to cut through the haze in the middle of the day, then Hong Kong is going to be back on the world stage again, but for the wrong reason," he said.

Eldon also suggested that a certificate system be adopted, giving recognition to

companies that implemented environmental-friendly initiatives.

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