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CAR LINES

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EUROPE

1. European Council Adopts Euro 5/6 Emission Standards

The European Council of Ministers has adopted the Euro 5 and Euro 6 emission standards for light-duty vehicles. As it was the case with earlier stages of EU emission standards, Member States have the right to introduce financial incentives for market introduction of clean vehicles ahead of the regulatory deadlines.

The finalized text of the new EU regulation will set new Euro 5 limits for fine particles, hydrocarbons and nitrogen oxides (NOx) from September 2009, with tighter Euro 6 standards for NOx applying from September 2014.

From 2009 NOx emissions from petrol cars must not exceed 60 milligrams per kilometer (mg/km), down from 80 mg/km under current Euro 4 standards. This standard will remain the same under Euro 6.

By 2009 diesel cars must limit NOx emissions to 180 mg/km - compared with the current 250 mg/km Euro 4 standard. In 2014, the standard falls again to 80 mg/km; similar cuts are also envisaged for diesel vans.

Emission limits for particulate matter (PM) from diesel cars will also be tightened. The current 25 mg/km Euro 4 limit will fall to 5 mg/km - the same as for petrol cars - under Euro 5 and Euro 6. The new limit is expected to require particle filters to be fitted to all new diesel cars from 2009.

Manufacturers of all vehicles will have to provide independent repair operators with "unrestricted and standardized" access to maintenance and repair information at a "reasonable and proportionate" charge.

From 2012 sport utility vehicles (SUVs) over 2 tons will be subject to emissions standards for cars rather than weaker separate standards that apply to "vehicles fulfilling special social needs".

2. France Gets New Environment 'Super-Minister'

Former Prime Minister Alain Juppe has been named environment minister in France's new center-right government under president Nicolas Sarkozy. He will head a powerful new super-ministry that also encompasses the energy and transport sectors and will be responsible for sustainable development.

The 61-year-old has also been given the honorific title of ministre d'Etat, making him the second most senior government member after Prime Minister Francois Fillon. It is the first time an environment minister has been given the title.

Mr. Juppe's appointment reflects Mr. Sarkozy's desire to make the environment a core theme of government action; the new president has pledged to make climate change one of his top international priorities.

During the election campaign Mr. Sarkozy reiterated France's call for an EU carbon tax on imports from countries without formal commitments under the Kyoto protocol. He pledged to

restart an ecological taxation reform abandoned by previous governments following fuel tax protests in 2000, and said sales taxes on greener products should be reduced to a 5.5 per cent rate instead of the standard 19.6 per cent.

Other pledges included offering reduced road toll rates for low-emission vehicles and making biofuels tax-free. He wants to follow Germany and Switzerland in taxing incoming heavy goods vehicles to reduce internal traffic. Mr. Sarkozy also supports the creation of a new generation of nuclear reactors by 2020.

3. UK Air Quality Worsens In 2006

Air quality in the UK worsened last year after having improved over the past two years, according to government figures. The number of days with "moderate or higher" pollution increased to an average of 41 in urban areas (22 in 2005) and 56 in rural areas (40 in 2005). Ozone continued to contribute most to pollution, followed by fine particles (PM10). Sulfur dioxide, carbon monoxide and nitrogen dioxide now rarely if ever reach moderate or higher pollution levels.

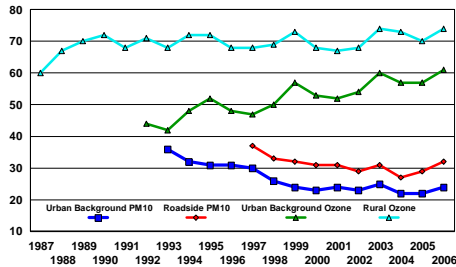
The main results are:

- Urban background particulate levels averaged 24 micrograms per cubic meter ($\mu\text{g m}^{-3}$) in 2006 compared to 22 $\mu\text{g m}^{-3}$ in 2005. These levels have increased slightly in each of the last two years, although there has been an overall decreasing trend since 1993, the first year for which data was available.
- Roadside particulate levels averaged 32 $\mu\text{g m}^{-3}$ in 2006 compared to 29 $\mu\text{g m}^{-3}$ in 2005. There has been a general downward trend since monitoring started in 1997, although this has been reversed in each of the last two years.
- Rural ozone levels¹ averaged 74 $\mu\text{g m}^{-3}$ in 2006 compared to 70 $\mu\text{g m}^{-3}$ in 2005 and 68 $\mu\text{g m}^{-3}$ in 1993. There is no clear long term trend.
- Urban background ozone levels averaged 61 $\mu\text{g m}^{-3}$ in 2006 compared to 57 $\mu\text{g m}^{-3}$ in 2005 and 44 $\mu\text{g m}^{-3}$ in 1992. These levels have shown an overall increasing long term trend since 1992, the first year for which data was available.
- In urban areas, air pollution in 2006 was recorded as moderate or higher on 41 days on average per site, compared with 22 days in 2005, and 59 days in 1993, reflecting a high degree of variability.
- In rural areas, air pollution in 2006 was moderate or higher for 56 days on average per site, compared with 40 in 2005. This figure has varied significantly over time, although there appears to be a gradually increasing long term trend.

Annual exposure to particles and ozone are measured and are shown in the Figure below. This measurement was introduced in the light of increasing evidence suggesting that long-term exposure to even low levels of particulate (PM10) may have a significant effect on public health. The annual mean values for particulates are a useful measure of overall exposure to particulates at all concentrations. The annual average measures of PM10 have been included to reflect this.

¹ Measured as the daily maximum 8-hour running mean

Annual average levels of Ozone and PM10 ($\mu\text{g m}^{-3}$)



The impact of long term exposure to low levels of ozone is currently less clear, but if there is no lower limit on the levels which have a health impact then the parameter used in the indicator gives the best representation of the overall annual impact of the short term effects of ozone pollution. There is an upward trend in urban background ozone levels in the UK, in common with rising hemispheric ozone levels, but this is not particularly evident in the rural ozone index. There is a more marked increase in urban areas, due to the reduction in urban emissions of nitrogen oxides, which tend to destroy ozone close to

their emission source.

4. London Mayor Announces Plans to Establish 'Low Emission' Zone

On May 9th, the mayor of London announced plans to establish a "low emissions zone" in the city in which operators of heavily polluting vehicles would be fined up to £200 (\$396) per day to enter. Transport for London, a part of the mayor's office, said the Low Emissions Zone, which is to be introduced in February 2008, would reduce the volume of airborne pollutants in the city by 16 percent.

The fee was set at a level "to encourage operators to clean up their fleets rather than to incur a charge," the mayor's office said. Operators of noncompliant vehicles who fail to pay the charge will be liable for a fine of £1,000.

Initially, the zone will apply to trucks, buses, and coaches over 12 tons, but in July 2008 it will be expanded to apply to "lighter [trucks], buses and coaches, and the dirtiest of other heavy vehicles."

The initial base standard, which will permit vehicles to drive within the zone at no charge, will be Euro 3, the standard that became mandatory for all new trucks, buses, and coaches sold in Europe beginning in October 2001, and for new vans and minibuses sold in the EU beginning in January 2002. By 2012, the scheme will apply the Euro 4 standard as a baseline, which became mandatory for all new trucks, buses, and coaches sold in Europe from October 2006.

Transport for London said the emission standards for a vehicle can be improved "by fitting a particulate trap or filter, which substantially reduces the amount of particulate matter emitted from the vehicle's exhaust," and that vehicles can also be converted "to an approved alternative fuel, such as compressed natural gas." It added, however, that the majority of heavy vehicles will not require changes, and that two-thirds of all lorries and half of all buses and coaches driving in London are already compliant with the 2008 Low Emission Zone standards.

5. Revised National Air Pollutant Cap Plan Delayed

European commission plans to tighten national air pollutant caps have been delayed until at least February next year, according to press reports. Legislative proposals to revise the EU national emissions ceilings (NECs) directive were originally promised for this July but have been delayed because of a pledge by EU leaders to cut greenhouse gas emission by 20 per cent to 2020 compared with 1990 levels.

The NECs proposals are being postponed to take account of new energy baselines being developed as part of work to draft differentiated member state greenhouse gas targets in a new burden-sharing agreement that will implement the pledge. These draft climate targets could reportedly emerge as early as the autumn.

The decision to incorporate the new baselines means that future national emissions ceilings could be even tighter for some member states, according to the commission. It might also reportedly affect the timing of other air pollution proposals such as a review of the IPPC directive and stricter Euro VI standards for heavy vehicles.

The NECs directive revision is likely to set caps on five pollutants: tighter limits on emissions of sulfur dioxide, nitrogen oxides, volatile organic compounds and ammonia, plus first-ever national caps on emissions of fine particulate matter (PM2.5).

The delay will not affect the projected 2020 deadline for achieving the ceilings but will reduce the time that member states get to meet them, the official said. He added that efforts to meet the EU's greenhouse gas emissions target will make it easier and cheaper to meet future caps on air pollution because of links between the two policies.

A recent report has shown that combining air and climate policies could bring the cost of complying with an EU thematic strategy on air quality - estimated at E7.1bn annually - down to zero.

6. French Study Links Car Pollution to Childhood Diseases

Atmospheric pollution linked to automobiles is responsible for a "significant increase" in the development of asthma and allergies in French children, according to new research published in the June issue of the international health journal *Respiratory Medicine*.² France's National Institute for Health and Medical Research (INSERM) studied the long-term health impacts of nitrogen oxide and fine particle emissions on more than 7,000 children in six French cities. The INSERM study--part of the International Study of Asthma and Allergies in Childhood (ISAAC) project--found that long-term exposure to these pollutants led to much higher rates of asthma, allergies, and various skin conditions than seen among children residing in low-pollution environments.

7. Italian Government Report Sees Improvement in Urban Environment

Italy's urban environmental indicators continued to improve last year but at a slower rate than in the past, according to a report released on April 20 by the technical wing of Italy's Environment Ministry. APAT's Third Report on the Environmental Quality of Urban Areas--2006 Edition (*Qualità dell'ambiente urbano III Rapporto APAT--Edizione 2006*) looks into the environmental health of Italy's 24 largest cities. APAT is the ministry's Agency for the Protection of the Environment and for Technical Services.

The report noted that much of the improvement could be attributed to the relocation of industrial facilities from cities to rural areas or to other countries.

² Residential Proximity: Fine Particles Related to Allergic Sensitization and Asthma in Primary School Children

It also found, however, that urban air quality improved between 1995 and 2003 due to cleaner vehicles, increased use of public transport, and policies to restrict city traffic. The improvement is more pronounced in northern cities, and the rate of improvement has slowed since 2000.

Italy made great strides in improving the size, use, and environmental friendliness of mass transit fleets in the 1990s, the report said. But improvements since then have been limited.

Urban planning has been relatively ineffective in environmental terms, the report said, with zoning laws often failing to take environmental issues into consideration on the same level as economic concerns.

8. Ship Emissions "Key to EU Air Quality Targets"

Limiting emissions from ships is a more cost-effective way of meeting EU air quality targets than tightening controls on land-based sources, according to a new study for the European commission. Conducted by the International institute for applied systems analysis (IIASA) in Austria, the study identifies measures that could reduce ship sulfur dioxide (SO₂) emissions by 80 per cent and nitrogen dioxide (NO_x) emissions by nearly 90 per cent by 2020.

It puts the cost of implementing these measures at E5.5bn per year, compared with an estimated E7.1bn annually to meet air quality targets under the EU's thematic strategy on air pollution for land-based sources. The latter aims to cut SO₂ by 82 per cent and NO_x by 60 per cent by 2020.

Emission abatement options explored in the study include seawater sulfur scrubbing, lower sulfur-content fuels, the use of "humid air" engines in new ships, slide valve retrofitting in existing ship engines and selective catalytic reduction.

If ship emissions are not further restricted, the study warns, the industry's growth will negate land-based emission control efforts by 2020. Today, ships are estimated to be responsible for between 10 and 20 per cent of sulfur deposition in coastal areas; by 2020, this could be 50 per cent, the study says.

9. Danish Report Highlights Shipping Emissions

On April 25th, Danish government research institute Danmarks Statistik released a report which found that the shipping sector has become the country's largest greenhouse gas producer. According to the report, global emissions from Danish-registered merchant and container ships, predominantly those owned by the shipping and container giant A.P. Moller Maersk, account for 25 percent of Danish companies' combined carbon dioxide emissions. The institute said in a statement that Denmark would not reach its 2012 Kyoto goals if shipping companies were included in overall emission figures. "CO₂ emissions from the Danish economy grew by 33 percent in the period 1990 to 2005," the statement said. "The main reason for this development is shipping, which has become more and more significant to the economy. Ships' energy usage has more than trebled since 1990." However, Danish Environment Minister Connie Hedegaard said that Denmark's record on carbon emissions reduction is one of the best in Europe. "Domestic emissions fell between 1990 and 2005," she said. "However, we have little influence on ships in foreign waters and such emissions do not count towards national totals."

10. Dutch Plan Extra Tax for Gas-Guzzling Cars

The Dutch government plans to levy an extra tax on cars to help fight climate change that could run into thousands of euros for the most heavily polluting vehicles. Cars that exceed a threshold level of carbon dioxide emissions would be taxed by an extra 80 euros to 90 euros (US\$108 to \$121) for each gram above the level, the Dutch Finance Ministry said in a statement. It also plans to lower taxes for vehicles with relatively low emission rates.

The threshold is 240 grams of CO₂ per kilometer for gasoline cars and 200 grams for diesel cars, the ministry said. The measures would apply to a car tax known as BPM, which is levied when a car is bought or registered in the Netherlands for the first time, a Finance Ministry spokesman said.

The extra levy would apply to most SUVs, such as BMW's X5, Chrysler's Jeep Grand Cherokee and Mitsubishi Motor Corp.'s Pajero, the spokesman said. The rule would add an additional 1,600 to 1,800 euros in taxes for BMW's X5 3.0si standard edition and 3,520 to 3,960 euros for Mitsubishi Pajero's Invite SWB 3.2 liter DI-D diesel with manual gearbox, according to emission data on the manufacturers' Web sites.

A few hundred euros would be saved in taxes for low polluting cars, such as PSA Peugeot Citroen's Peugeot 107 and Citroen C1, and hybrid cars like Toyota Motor Corp.'s Prius and Honda Motor Co.'s Civic, the spokesman said.

Following a European drive to fight climate change, the new Dutch government, which took over in February, wants to achieve energy savings of 2 percent per year, boost the share of renewable energy to 20 percent and cut CO₂ emissions by 30 percent by 2020.

Britain raised vehicle road tax for the most polluting cars in March and Germany has announced plans to tax cars based on emissions rather than engine size.

In addition to the planned new tax changes, levies on polluting cars and incentives for the least polluting cars which are already part of the BPM would be raised, the Finance Ministry said.

For company-leased cars, the ministry proposes a tax reduction for employees who choose a car with a CO₂ emission rate below 110 grams per kilometer and use the car for private purposes, the ministry said.

The moves are part of government plans that also include extra taxes on airline tickets and environmentally unfriendly fuels and energy sources which are currently being studied by the Finance Ministry, the spokesman said.

The car tax plan is expected to come into force by Jan. 1, 2008 if the Dutch parliament approves it, he said.

11. Swedes to Pursue 30% Greenhouse Gas Reduction

Sweden will pursue a unilateral 30 per cent reduction in national greenhouse gas emissions by 2020 compared with 1990 levels, environment minister Andreas Carlgren told the Svenska Dagbladet newspaper.

In March EU leaders agreed to a joint unilateral cut of 20 per cent by same the deadline. At the time Sweden argued for the higher target.

The government will formally propose the target to parliament later this year, Mr. Carlsen said. Sweden's emissions of greenhouse gases amounted to 67 million tons in 2005, a reduction of seven per cent since 1990, according to the Swedish environmental protection agency.

12. Germany Unveils Plan to Cut Carbon Emissions 40 Percent by 2020

On April 26th, German Environment Minister Sigmar Gabriel introduced in the Bundestag an eight-point plan to reduce the country's carbon dioxide emissions 40 percent from 1990 levels by 2020. The plan calls for expanding renewable energy output and improving energy efficiency, and assumes the continuation of existing German plans to phase out nuclear energy in the coming decades.

Gabriel estimated the plan would cost [Euros] 3 billion (\$4.1 billion) through 2010, but made no further cost projections.

The eight parts of his plan are:

- 1) Use energy efficiency programs to reduce consumption by 11 percent
- 2) Replace older power plants with newer, more efficient ones
- 3) Boost renewable energy from 12 percent of current consumption to 27 percent
- 4) Boost to 14 percent the amount of heating demand powered by renewable energy
- 5) Increase the efficiency of cogeneration power plants
- 6) Reduce energy consumption by supporting programs to make homes and heating systems more energy efficient
- 7) Increase vehicular efficiency and biofuel usage
- 8) Support projects to reduce the emission of greenhouse gases other than carbon

"It is an ambitious goal," Gabriel said. "But initial results of federal studies show that it is possible." If the plan is successful, he said Germany could trim carbon dioxide emissions by 270 million tons per year. Germany reported emitting 474 million tons in 2005.

Gabriel cited studies which he said projected that Germany would suffer [Euros] 137 billion in climate change-related costs if action was not taken to reduce greenhouse gases. He said the proposed plan would have lower economic costs and would in fact generate new jobs.

Gabriel also reiterated his support for a plan to auction carbon dioxide emissions allowances rather than allocating them for free, as has been done since the EU Emissions Trading Scheme was launched in 2005.

He said that more needed to be done to make the EU ETS transparent and to harmonize emissions trading rules among EU member states. He added that pollution from air travel should also be included.

13. Norwegian Prime Minister Plans to Cut Carbon Emissions to Zero by 2050

On April 19th, Norwegian Prime Minister Jens Stoltenberg outlined plans to reduce the country's greenhouse gas emissions to zero by 2050. In a speech to the Labor Party National Congress, Stoltenberg said his government intends to surpass Norway's Kyoto Protocol target by reducing greenhouse gas emissions by 20 percent from 2005 levels by 2012.

Stoltenberg said Norway intends to be at the forefront of international emissions-reduction efforts and to take a leading role in developing a new, binding agreement on climate change to succeed existing Kyoto Protocol agreements, which expire in 2012.

"It has been more than fifty years since researchers began to talk of the danger of the climate changing as a result of man-made greenhouse gas emissions," he said. "But the effect looks to be wider than first thought, the consequences more dramatic, and the time scale shorter. The last report from the [U.N. Intergovernmental Panel on Climate Change] concluded that changes are taking place now and action is needed quickly. The time for doubt is over."

"The Kyoto agreement is the best we could have got but it has serious weaknesses which must be addressed," he continued. "The most important [flaw] is that it only covers countries responsible for 30 percent of the world's total greenhouse gas emissions."

Stoltenberg also pointed to Norway's investment in carbon dioxide capture and storage technology as one of the factors that will allow Norway to achieve the zero-emission goal. "We are investing a lot in clean CO₂ ... [but] the real effect of this investment will come with the success of the technology that will, in the future, be used in coal-fired power stations across the world," he said. "Our ambition is for Norway to be the world's best nation at handling CO₂ from power stations."

He also called on other nations to follow Norway's example, urging all wealthy nations to ensure that each ton of greenhouse gas they emit is offset by an equivalent reduction elsewhere.

14. Emissions of Greenhouse Gases Drops in 2005 in EU-15

Greenhouse gas emissions from the 15 pre-2004 EU member states declined 0.8 percent in 2005 compared with the previous year, the European Environment Agency (EEA) said on May 7th. The slight reduction meant EU-15 emissions in 2005 were 1.5 percent lower than the 1990 base year for the first phase of the Kyoto Protocol, the agency said.

The EU-15 countries have a collective Kyoto target of an 8 percent reduction from 1990 levels by the period 2008-2012.

However, EEA added that when all 27 current EU member states were taken into account, emissions in 2005 were already 8 percent lower than in 1990. This is a result of substantial emission reductions in Eastern European countries that joined the EU in 2004 and after. Emissions from the Czech Republic, for example, are expected to be 30 percent lower in 2010

than in 1990, according to EEA due to post-communist industrial restructuring. For Slovakia, the reduction will be 27 percent, while for Poland it will be 12 percent.

EEA said the 2005 emissions reduction was due primarily to the reduced use of coal due to warmer winter temperatures, especially in Germany, Finland, and the Netherlands.

Road transport emissions also declined due to the increasing use of diesel cars, said EEA, which added that this apparent trend needs to be "further analyzed."

"The drop in emissions, while positive, must be viewed in context. It represents a decrease over only one year and may not be representative of the trend over a longer period," EEA Executive Director Jacqueline McGlade said in a statement.

The EEA figures were contained in a pre-release of information from a report titled Annual European Community Greenhouse Gas Inventory 1990-2005 and Inventory Report 2007. The agency said in a statement that the full data will be published in mid-June.

15. EU Commission Opens Consultation on Achieving 10 Percent Biofuels Target

On April 30th, the European Commission called for input into a public consultation on how the European Union should meet a target for biofuels to make up 10 percent of vehicle fuels by 2020. EU Energy Commissioner Andris Piebalgs said in a statement that the aim of the consultation was to ensure that the advantages of biofuels are not "offset by environmental damage through inappropriate land use or outdated production processes."

The consultation asks interested parties to respond to a range of questions on the issues of:

- designing a sustainable biofuels system;
- monitoring impacts on land use;
- encouraging development and use of "second-generation" biofuels, such as biofuel from cellulosic material; and
- Legislative steps and taxation measures needed to achieve the 10 percent target.

EU governments agreed to a binding 10 percent biofuels target at the European Council in Brussels on March 8-9th. EU states are free to set higher national targets if they choose to.

The consultation is open until June 4.

16. Switzerland to Adopt EU Regulations for Diesels Starting in 2009

On May 30th, the Swiss government announced that it will implement new European Union norms for limiting particulate emissions from diesel vehicles starting in September 2009. Switzerland initially sought to impose the regulations this year, but postponed the entry into force by two years following complaints from European and Asian auto exporting countries in the World Trade Organization that the country failed to give enough advanced warning.

The proposed limits, known as Euro 5, will cut the amount of particulate matter in diesel car exhaust by 80 percent to 5 milligrams per kilometer. The Swiss government noted that the new norms would require installation of exhaust filters on diesel vehicles.

The government's announcement in early 2006 of its intention to impose tougher particulate matter emissions standards has already led to a jump in the percentage of vehicles equipped with the filters, from 42 percent of new diesel cars sold in January 2006 to 77 percent by the end of the year.

Around 30 percent of new cars sold in Switzerland are diesel powered. The Swiss Federal Office for Environment, Forests, and Landscape projected in a 2004 report that particulate emissions from diesel cars would increase from 125 metric tons per year to 500 metric tons by 2030 because of the increased popularity of diesel vehicles.

17. Portuguese EU Presidency Plans Discussions with Emerging Countries

After it takes over the European Union's rotating presidency in July, Portugal will organize a series of summits with the largest emerging economies in a bid to win their support for an agreement at the U.N. Climate Change Conference in December. That December meeting in Bali, Indonesia, will be the first U.N. forum to formally address what will succeed existing Kyoto Protocol commitments on greenhouse gas emissions, which expire in 2012.

Alvaro de Mendonça, Portuguese ambassador to the European Union, said in response to a question at a June 11th meeting in Brussels that it would be impossible to "reach a conclusion about post-2012 without engaging [countries such as Brazil and China]."

Leaders of the Group of Eight industrialized nations meeting in Heiligendamm, Germany, June 6-8 agreed to "consider seriously" a post-2012 agreement, including an emissions reduction target of 50 percent by 2050. But the biggest developing nations resisted pressure to endorse the declaration.

De Mendonça said, "In the run up to Bali, one of the main tasks is to engage" with the so-called BRIC nations, an acronym for Brazil, Russia, India, and China.

"We have to bring them along. We have to show them it's not just in our interest but in theirs as well," de Mendonça said.

Portugal will hold the rotating presidency for the second half of 2007, and, as such, will play the lead role for the European Union in planning and chairing international discussions.

Commenting on the outcome of the G-8 Summit, de Mendonça said it could be considered a success because the United States and other countries had agreed to take part in the U.N. climate change process.

He added that the agreement of EU leaders in March to adopt a target of a 20 percent emissions cut by 2020 compared to 1990 levels--rising to a 30 percent cut if other nations agree--was "crucial" to persuading the United States to take seriously the possibility of a U.N. framework. Disunity in the European Union would have made this impossible, de Mendonça said.

The ambassador added that the first meeting, with Brazil, would take place in "the first days of the [Portuguese] presidency." Details of other meetings have yet to be announced.

18. Diesel Gains Share of UK's Falling May New Car Market

New UK car registrations last month were down 2.2% year on year at 185,797 units, though after the large total in March, total year-to-date registrations were still up 2.2% to 1,044,436 units. Year-to-date diesel registrations have risen by 7.2% to 404,658 units. The May total led the SMMT to forecast an annual total of 2.335 million new car registrations. J D Power Automotive Forecasting expects a decline in retail registrations, but still forecast the UK market to finish slightly higher at 2.35m units in light of May's figure.

19. Finnish Vehicle Tax System to Be Emissions Graduated In 2010

Finland's finance ministry is putting together a bill that if enacted would introduce emission gradation into the country's motor vehicle tax system, national daily Helsingin Sanomat has reported. According to the paper, the government is expected to hand the proposal to Parliament by the end of the year.

The graduated vehicle tax would favor cars with low emissions.

Helsingin Sanomat quoted the ministry as saying it was not planning changes in the car tax, payable on purchase.

20. Spain Close to Imposing Emissions Tax on Cars

The Spanish government is close to imposing emissions-related taxes on cars, which will raise taxes for the more contaminating models and probably lower them for the least contaminating, the environment minister announced at a meeting. "The Economy Ministry has practically completed a package of measures that will provide maximum incentives for the least contaminating vehicles," Cristina Narbona said.

"We are talking about emissions to the atmosphere, which defines itself. Some cars emit more, others less," she told journalists after a business meeting organized by financial newspaper Cinco Dias.

The law is likely to be included in a batch of energy-saving measures due to be approved by ministers within the next few weeks, she said. There are also incentives to get trucks off the roads and make it more attractive to send freight by rail.

Narbona declined to say in an interview whether vehicle tax changes would be neutral overall.

Spanish industry has successfully curbed its emissions of carbon dioxide (CO₂), the main greenhouse gas causing global warming. However CO₂ from road transport is still growing fast and the government is under pressure to act if Spain is to stand a chance of meeting its commitments to the Kyoto agreement on climate change.

The carmakers' association Anfac is alarmed by moves to tax certain models or technologies and warned the sector's competitiveness could suffer. Most of the major manufacturers, like Ford and General Motors Corp, have plants in Spain. Car sales have fallen so far this year because of higher interest rates.

Spain's Congress, where the Socialist government is the largest party, has just rejected a move by a small Catalan party to cut taxes on the cleanest cars.

21. MEPs Call Commission's Car CO2 Plans Unrealistic

MEPs on the European parliament's environment committee have described as "unrealistic" European commission plans to set legal limits on carbon dioxide emissions from cars. Their main complaint is that the proposed 2012 deadline for the limits does not give carmakers enough time to adapt their technology.

The committee held its first debate on the issue in preparation for a non-legislative resolution being drafted by UK Liberal MEP Chris Davies. Mr. Davies said manufacturers should be given tougher carbon goals but have longer to meet them. "Maybe we should set a more ambitious target with a longer timeframe," he said, suggesting 2014 as the date when new Euro 6 limits on other vehicle emissions will also come into force. Retaining the 2012 target date - a long-standing EU commitment - would be "political tokenism", he said. Several members supported him.

In February, the commission announced its intention to table draft legislation on the issue by mid-2008 at the latest. The parliament will have co-decision powers over the proposals. The aim will be to reduce emissions from new cars to 120 grams of CO2 per kilometer by 2012. Carmakers would be forced to cut emissions to 130g/km through improvements in engine technology, while "complementary measures" such as tire pressure monitoring and increased use of biofuels would make up the difference.

Mr. Davies was wary of the suggested complementary measures. He questioned how their contribution would be measured in practice, and said they should not form part of the binding carbon target. Imported biofuels must not count towards the target, he added, as this would raise global food prices and drive deforestation.

Other MEPs stressed the need to avoid damaging the European car industry's competitiveness in the push for reduced emissions. "Legislation should drive innovation, rather than shift production to other parts of the world," German Liberal Holger Krahmer argued. Compatriot Rebecca Harms from the Greens said the committee "would be nuts" to suggest a weaker target than that proposed by the commission and endorsed by EU environment ministers.

22. Carmakers Dig Heels In Over CO2 Curbs

Vehicle manufacturers remain staunchly opposed to plans from the European commission to legislate to reduce carbon dioxide emissions from new cars. In its annual report, the European auto manufacturers' association Acea warned that the plans designed to cut CO2 emissions risk having the opposite effect.

Meeting the target of 130 grams of CO2 per kilometer by 2012 through engine technology alone will add E2, 500 on average to the cost of a new car, Acea says. This will reduce the number of

new cars sold, slowing the renewal of the existing car fleet and keeping aggregate CO2 emissions higher.

The report also attacks the wider regulatory framework for cars in the EU, arguing the internal market is not yet fully functioning. It points to discrepancies in national taxation systems and a lack of harmonization in applying EU rules on car recycling, adding "This has to change!"

EU car makers will be unable to meet binding targets to cut carbon dioxide from their vehicles until at least 2015, according to the president of Acea. Sergio Marchionne, who is also CEO of Fiat, said the middle of the next decade was the "the first feasible date" that industry could meet targets floated by the European commission.

"The announced legislative framework will most likely not be ready before 2009. By then, the cars of 2012 will have left the drawing tables", Mr. Marchionne told Acea's annual reception in Brussels.

Despite his criticism of the commission's preferred timetable, which he claimed would force the industry to relocate its manufacturing out of Europe, Mr. Marchionne's comments are the first public indication that Europe's carmakers are ready to accept the 130g/km figure.

23. EU Automobile Industry Defines Approach to Reduce CO2 from Cars

The Board of Directors of ACEA, the European Automobile Manufacturers Association, agreed at their regular meeting on the general framework and basic principles that should apply to the new EU policy to further reduce carbon emissions from cars. The details of a possible legislative framework will be subject to further discussions in the months ahead. "Defining the right policy is a long process and needs thorough assessment and consideration", said Sergio Marchionne, President of ACEA and CEO of Fiat.

The ACEA Board, consisting of all thirteen members' CEOs, reiterated that the target of 130 grams CO2 per kilometer by 2012 through vehicle technology only, as proposed by the European Commission, is not feasible. Furthermore, the vehicle industry needs appropriate lead-time ahead of a legislative framework because of long development and manufacturing cycles. "The European manufacturers operate in a fiercely competitive environment. Their investment and innovation capacity should not be crippled. The first feasible date for implementation of new legal requirements is 2015", said Marchionne. The ACEA members will increasingly implement CO2-cutting technology such as gear-shift indicators, tire pressure monitors, efficient air-conditioning and light-weight car parts to ensure a steady further carbon reduction in the coming decade.

Within a future policy framework, cars should stay accessible to consumers to ensure fleet renewal. The effect of possible legislation should be neutral as far as competition between manufacturers is concerned. CO2 reductions from cars should be related to the differentiation in the car portfolio of the EU manufacturers, with weight as the most suitable parameter. Manufacturers should be able to average the CO2 performance of their fleet.

The European automobile manufacturers share an unwavering commitment to further reduce CO2 emissions from cars and stress this requires a substantial effort from all relevant actors involved: the fuel industry, policy makers, drivers and the automotive industry. Such an approach would combine the ongoing improvements in vehicle technology with a larger use of

biofuels, infrastructure adjustments and implementation of traffic management, CO2-related taxation of both cars and alternative fuels, and the adoption of a more economic driving style by consumers. According to ACEA, all policy elements should be included and their contributions should be allocated in a fair and adequate way, to the benefit of the environment and the EU economy.

NORTH AMERICA

24. US Sales of Hybrids Set New High; Close to 3% of New Vehicles in May

Sales of light-duty hybrid electric vehicles in the US set a new mark in May at more than 45,000 units sold, up 91% from May 2006. Those numbers do not include sales of GM hybrids, as GM does not yet break those figures out separately.

Overall, light duty vehicle sales in the US rose 5% in May 2007 compared to the prior year, according to Autodata. Sales of passenger cars increased 6.1%, while sales of light-duty trucks increased 3.9%. The combined hybrid sales from Toyota, Honda, Ford and Nissan represented 2.9% of new vehicle sales in May—the highest percentage yet.

Toyota accounted for the bulk of the May results with the Prius selling a record high 24,009 units and the Camry Hybrid selling a record 6,853 units. Toyota's other hybrids, however, all declined relative to last May: 3,312 Highlander Hybrids (down 12% from May 2006); 1,746 Lexus Rx 400h units (down 13% from May 2006); and 181 GS 450h units (down 38% from May 2006).

Honda's sales of the Civic Hybrid increased 56% to 4,520 units in May, representing 11.3% of all Civic models sold. Sales of the Accord Hybrid dropped 16% to 439 units, representing 1.4% of all Accord models sold in May. Honda has decided not to offer a hybrid version of its upcoming new Accord.

Ford's hybrid Mariner and Escape had their second best month to date, with sales increasing 12% to 3,214 units representing 13.8% of all Mariner and Escape models sold.

Nissan turned in its best results yet for the Altima hybrid, with 821 units representing 3.4% of all Altima models sold. The Altima hybrid is on sale only in eight states.

25. Three BLUETEC Tier2 Bin5 Diesels Shown at Detroit



DaimlerChrysler, Audi and Volkswagen, all partners in the BLUETEC clean diesel marketing initiative, each showed a new Tier 2 Bin 5 compliant (i.e., able to be sold in all 50 states) BLUETEC model at the North American International Autoshow in Detroit, with promises of more to come.

DaimlerChrysler introduced its Mercedes Benz Vision GL 420 BLUETEC; Audi showed its new Q7 3.0 TDI BLUETEC; and Volkswagen had its concept Tiguan on display.

The Vision GL 420 BLUETEC is a full-size SUV featuring a V8 diesel engine, which develops 290 hp (216 kW) and 700 Nm (515 lb-ft) of torque, while delivering fuel consumption of 9.8 liters/100 km (24 mpg US). For a vehicle the size of the GL 420, Mercedes uses a continuous urea-based Selective Catalytic Reduction (SCR) system with a conversion efficiency of up to 80%. The GL 420 is targeted to go on sale in the US in 2008.

Audi confirmed it will introduce its Q7 3.0-liter TDI SUV in the US in 2008 as well. The Q7 3.0 TDI will be Audi's first model to showcase Tier 2 Bin 5 compliant BLUETEC technology. Audi is also using a urea-based SCR emissions aftertreatment system to bring NOx emissions down to the required level. Although the approach is the same, the system and suppliers are different, according to Audi. The Q7 3.0 TDI delivers 171 kW (232 hp) of power.

Volkswagen is using the same BLUETEC aftertreatment system in its concept Tiguan, according to Audi. VW is also testing a "Clean TDI" Jetta with a lean NOx trap for its BLUETEC solution. VW will provide more technical details on the concept Tiguan later this spring.

26. Report Predicts Diesels Will Surpass Hybrids in Near Future

With U.S. regulators looking to revise fuel economy standards amid concerns for energy security and greenhouse gas (GHG) emissions, research published by UBS and Ricardo points to combined annual diesel and hybrid gasoline vehicle sales in the United States of 2.7 million units by 2012. The Ricardo / UBS research report "Is Diesel set to boom in the US?" sets out the legislative and consumer drivers of engine technology for the North American automotive market over the coming decade, as well as the many candidate technologies available for future vehicle products.

At present, hybrid gasoline technology appears to be the preferred route in the United States, not least due to its attraction as a visible badge of green awareness amongst higher income purchasers. Many original equipment manufacturers plan to launch hybrid products in the next few years, but the report highlights that this technology faces substantial manufacturing cost penalties, which are unlikely to be eroded even in mass production. Diesel has a clear cost advantage over hybrid, even when fitted with the type of complex exhaust after-treatment technologies necessary to meet future, more stringent emissions regulations.

Diesel already dominates in Europe. The conditions may now be right for a big acceleration in diesel sales in the North American market. Ricardo forecasts that combined diesel and hybrid gasoline will represent 15 percent of the U.S. light vehicle market by 2012, with sales of diesels outstripping gasoline hybrids by 1.5 million units versus 1.2 million. UBS highlights that European automakers and a number of global suppliers look set to benefit from the diesel trend.

27. Low Sulfur Diesel Fuel For Off Road Sector Starts Production

Starting June 1, the nation's refineries will begin producing low sulfur diesel fuel for use in off-road equipment. The new fuel will then wind its way through the distribution system, so that by December 1, locomotives and marine vessels, as well as farming, construction and mining equipment, will switch to diesel containing nearly 85 percent less sulfur. This new off-road fuel has a sulfur content of 500 parts per million, reduced from approximately 3,000 parts per million in the previous blend.

"June 1 marks an important next step on the road to clean diesel. Last year saw the nationwide availability of on-highway ultra-low sulfur diesel fuel enabling manufacturers to engineer the cleanest diesel trucks ever. This new fuel will begin bringing the same benefits to off-road equipment," said Allen Schaeffer, executive director of the Diesel Technology Forum.

By 2010, sulfur levels in most non-road diesel fuel will be reduced to 15 parts per million, making it possible for engine manufacturers to use advanced exhaust control systems that significantly reduce emissions. For locomotive and marine fuel, this step will occur in 2012.

28. Kids Breathing High Pollution on Aging Buses

In 2005 federal lawmakers passed a measure to replace or retrofit the dirtiest diesel engines across the nation. But little has been done. Around the country, state officials are struggling to find the money to carry out clean school bus initiatives. And Congress has yet to deliver on the \$1 billion it promised over five years to help states clean up diesel fleets, including school buses.

Breathing high concentrations of diesel emissions—known as particulates—can cause minor ailments such as headaches, wheezing and dizziness. But studies have also found the contaminants can do more serious damage. Recent studies by the Environmental Protection Agency and other groups link the emissions to asthma and lung cancer.

Two types of filters are available to reduce the most dangerous emissions on older buses. Diesel particulate filters—which are installed in place of mufflers at an estimated cost of \$700 each—can reduce tailpipe emissions by at least 85 percent. Closed crankcase filtration systems, which go under the hood and cost \$7,500, can reduce engine soot by about 90 percent. A bus can be fitted with one or both filters.

An estimated 390,000 diesel school buses are on the road in the U.S., according to the EPA. Most new buses were manufactured to meet stricter emissions guidelines and do not need filters. But about one-third of the nation's diesel school-bus fleet, or more than 100,000 buses, were manufactured before 1990 and are big polluters, according to EPA.

Researchers say older buses also let lots of emissions enter through doors and windows. The longer the ride, the more harmful to children, they say.

In Texas, lawmakers two years ago created a grant program to help schools pay for the filters. But they never funded the effort. The money was supposed to have come from an emissions reduction fund supported by fees on vehicle sales, registrations and inspections. But lawmakers have diverted much of that revenue to pay for other things.

Clean bus advocates hail California as the leader on the issue. Voters there approved \$200 million last year to clean up its school bus fleet. But in Pennsylvania, Louisiana and elsewhere, state money to help schools retrofit buses has been nonexistent.

Congress passed the Diesel Emissions Reduction Act, a bipartisan initiative that authorized \$1 billion to help states clean up diesel fleets. But states have seen none of that money. The Bush administration proposed modest funding for DERA in its last two budget requests, but Congress has not acted.

Illinois Sen. Barack Obama, one of the bill's co-sponsors, is continuing to push for funding. The Democratic presidential hopeful has accused his colleagues of "foot-dragging."

The Clean Air Task Force in Boston put electronic monitors in students' backpacks to test air quality inside school buses. The organization said it found that the diesel exhaust levels were on average five times greater than they were outside.

Experts say children are particularly vulnerable because soot particles can disrupt development of their respiratory systems. Also, children breathe more quickly than adults and take in more air per pound.

29. EPA Documents Say Diesel Retrofits Cost-Effective in Improving Air Quality

A report released in May by the Environmental Protection Agency said that retrofitting existing diesel-powered trucks and other equipment with emission controls is a cost-effective way to use federal transportation money intended to improve air quality. The report, *The Cost-Effectiveness of Heavy-Duty Diesel Retrofits and Other Mobile Source Emission Reduction Projects and Programs*, said that retrofitting diesel engines is among the most cost-effective ways for spending federal transportation funds provided through the Congestion Mitigation and Air Quality (CMAQ) program. CMAQ provides federal aid to transportation and infrastructure projects specifically designed to reduce congestion or improve air quality.

Congress in 2005 directed states to give priority to diesel retrofits, particularly for equipment used in road construction, when deciding how to spend CMAQ money. The provisions were included in the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU).

EPA said it issued the new report in compliance with SAFETEA-LU requirements for the agency to publish information on diesel retrofit requirements. The report lists cost ranges per ton of reduced particulate matter emissions, as well as reduced emissions of nitrogen oxide and volatile organic compounds (VOCs) that lead to ground-level ozone formation.

The report also said that diesel retrofits are necessary to help states comply with national ambient air quality standards for ozone and particulate matter. States are required to comply with the standard for fine particles, those less than 2.5 microns in diameter, by 2010, and with the ozone standard beginning in June 2007. The report said, "It is particularly urgent" for states with nonattainment areas to "begin now to direct CMAQ resources to the control of diesel emissions."

EPA also recently published a technical analysis to evaluate the cost effectiveness of retrofitting existing heavy-duty nonroad diesel engines to reduce particulate matter (PM) and/or nitrogen oxides (NOx.) The report is entitled "Diesel Retrofit Technology: An Analysis of the Cost-Effectiveness of Reducing Particulate Matter and Nitrogen Oxides Emissions from Heavy-Duty Nonroad Diesel Engines Through Retrofits".

Analysts in EPA's Office of Transportation and Air Quality (OTAQ) evaluated the costs and emissions benefits of retrofitting nonroad equipment such as tractors/loaders/backhoes, excavators, cranes, generator sets, agricultural tractors, crawler tractors/dozers and off-highway trucks with diesel oxidation catalysts (DOCs) and catalyzed diesel particulate filters (CDPFs),

two of the most common PM emissions reduction technologies for diesel engines as well as with selective catalytic reduction (SCR) systems and engine upgrade kits that reduce NOx emissions.

EPA calculated that the cost effectiveness for both diesel oxidation catalysts and catalyzed diesel particulate filter retrofits ranged from \$18,700 to \$87,600 per ton of PM reduced. In addition, EPA calculated the cost effectiveness for both selective catalytic reduction systems and engine upgrade kits ranged from \$1,900 to \$19,000 per ton of NOx reduced.

The findings from these studies indicate that retrofit technology can be a cost effective way to reduce air pollution and health impacts associated with diesel emissions from a wide variety of sources.

30. Governors Urge EPA to Forgo Tightening Ozone Standard

A group of mostly Southern and Western governors is asking U.S. EPA to abandon a proposed tightening of health standards for ground-level ozone, citing the cost of tighter regulation, and in some cases questioning the science used to justify it. Leaders from 11 states, including Texas and Georgia where nearly 20 million people live in large cities with smoggy air, want EPA Administrator Stephen Johnson to avoid tightening the national ambient air quality standard (NAAQS) for ozone.

In a series of letters dated between April 6 and April 19, the governors urged Johnson to consider the broad economic effects associated with a new health standard and requested that EPA consider ozone reductions already made by states under existing laws and programs.

EPA staff scientists, along with the agency's independent advisory panel known as the Clean Air Science Advisory Committee, have recommended that Johnson approve a revision to the national health standard, which currently allows ozone concentration to reach 0.084 parts per million (ppm) before triggering a violation.

While agency scientists have recommended that the standard be tightened to within a range of 0.080 and 0.060 ppm, EPA's independent science advisers in March called for a benchmark of no higher than 0.070 ppm. The committee was unanimous in its recommendation, citing "overwhelming scientific evidence" supporting such a move.

But in letters to Johnson, the governors or their representatives refute the advisory board's findings and in one case directly challenge the soundness of the science behind the recommendation.

A letter from the governors of Alabama, Arkansas, Louisiana, Mississippi, Oklahoma and South Carolina asks Johnson to allow "a full scientific debate on the health impacts associated with the various levels within the recommended range" of 0.080 and 0.060 ppm.

They also ask that EPA provide the public "with information about the implications of changing the existing standard," including how such a change would affect the economies of the states.

Critics note, however, that federal health standards for criteria pollutants -- including ozone, particulate matter, carbon monoxide, nitrogen dioxide, sulfur dioxide and lead -- are not subject to economic considerations.

Johnson is expected to make a final decision on the ozone standard revision by June 30.

31. Other States Urge EPA to Adopt Science Advisers' View on Standard

On June 6th, the Ozone Transport Commission (OTC) urged the Environmental Protection Agency to "give great weight" to the recommendations of its Clean Air Science Advisory Committee (CASAC) when it issues a revised standard for ozone. At its annual meeting, the OTC also issued a statement opposing any efforts to restrict states' ability to adopt and implement emissions control standards promulgated in other jurisdictions.

OTC is composed of 12 Northeastern states from Maine to Virginia and the District of Columbia.

Bill Harnett of the EPA Office of Air Quality Planning and Standards told the group that the agency will propose a revised ozone standard that is "reflective of the advice we've been getting." There was a "strong internal reaction" within EPA to the advice of CASAC, he said, but not everyone will be satisfied with the range the agency recommends.

EPA is under court order to approve a final standard by March 12, 2008.

CASAC has called for a new primary standard of between 0.060 and 0.070, down from the current 0.080, while EPA staff has proposed lowering the standard to a range of 0.060 to somewhat below 0.080, said Rich Poirot, a Vermont environmental official and a member of the advisory committee.

Studies of short-term exposure to ozone show "statistically significant increases in mortality relative to a 10 parts per billion increase in daily ozone," Michelle L. Bell, a researcher from Yale University, told the meeting. Bell said that researchers have attempted to determine whether there is any safe level of ozone below which people are not at risk and have concluded that "if there is a threshold, it's very low and below our ability to investigate." She added that the risk posed by ozone is not lessened by low temperatures or absence of particulate matter.

Once the proposed ozone standard is released, EPA will embark on a new streamlined process for releasing new national ambient air quality standards, Harnett said. The agency is seeking to complete all reviews in five years, he commented. The process will require cutting off the science at some particular point and moving on with more concise evaluations, according to Harnett. Staff papers will be replaced by an advance notice of proposed rulemaking that will contain policy assessments that reflect agency views, he said. New standards will be proposed for lead, nitrogen oxide, sulfur dioxide, and particulate matter in the next few years, he added.

The OTC's statement on emissions standards in other jurisdictions denounces draft legislation released June 1 by the House Energy and Commerce Committee on alternative fuels, infrastructure, and vehicles. OTC said the draft legislation "sets a deeply troubling precedent by removing a state's right to choose a control strategy option."

The Clean Air Act "is premised on a state-federal partnership that should not be subject to selective erosion, as proposed in the draft bill," the statement said. "States and local air control districts must have access to a broad and comprehensive range of air pollution control strategies if the public health and welfare are to be fully protected."

32. World Digests Bush Climate Policy Pledge

US president George Bush threw global efforts to curb greenhouse gas emissions into confusion by announcing plans for a new international negotiation effort outside the UN. The announcement came days before a G8+5 summit in Heiligendamm, Germany, where the EU, led by German chancellor Angela Merkel, has been trying to get the US to sign up to binding emission reduction targets and carbon trading.

Britain, Japan, Canada and Australia all welcomed the US proposal, even though it rejects both binding caps and carbon trading. Germany, which will host the G8 summit, reacted more warily.

"It could mean a change in the American position, but it could just be fog to hide real intentions," German environment minister Sigmar Gabriel said on Friday at the start of an informal meeting of EU environment ministers. "If the American proposal is a way to prepare an agreement [at UN climate negotiations in December] in Bali, then it's good. If it's a means somehow to get over the Heiligendamm summit and hamper an international climate change agreement, then it's dangerous," Mr. Gabriel said. "It's very important to look at the proposals and see if there are clear targets to reduce emissions."

"For the first time [America] is setting its own domestic targets, for the first time it is saying it wants a global target for the reduction of emissions and therefore for the first time we've got the opportunity of getting a proper global deal," UK prime minister Tony Blair told Sky News during a visit to South Africa.

"I believe that the United States is finally getting serious in dealing with global warming," Prime Minister Shinzo Abe was quoted as saying by Kyodo News.

"We have to have some targets, but in the short-term there needs to be flexibility in targets and methods of reaching them," affirmed Canadian Prime Minister Stephen Harper, expressing his support for Bush's proposal.

Australian environment minister Malcolm Turnbull said the US plan presents a "practical road map" for cutting greenhouse gas emissions. "The reality is we need commitments from the whole world... but we need those commitments in the form that they're prepared to give them," Mr. Turnbull said.

European commission president Jose Manuel Barroso told the Financial Times newspaper that the US had "crossed the Rubicon" in accepting the threat of climate change but was still not fully facing up to its responsibilities. The US goal to solve global warming with technology would only work if it signed up to a global system of "measurable, binding, enforceable targets", he said.

Green groups condemned the plan. Brent Blackwelder, president of Friends of the Earth, called the proposal "a complete charade". "It is an attempt to make the Bush administration look like it takes global warming seriously without actually doing anything to curb emissions," he said according to newswire Associated Press.

Greenpeace International called the US plans a dangerous sham. "[It] is also a desperate attempt to head off the start of international negotiations on the next stage of emissions reductions after 2012," said John Coequyt of Greenpeace USA.

US Senator Barbara Boxer, chairman of the senate committee on environment and public works, welcomed the move. She offered to share with the president expert testimony gathered by her

committee on the importance of a mandatory gap on emissions and market mechanisms to put a price on carbon.

President George W. Bush's plan to tackle climate change merely restates US policy which has been ineffective in the past in cutting emissions blamed for global warming, said the EU's environment chief. "The declaration by President Bush basically restates the US classic line on climate change -- no mandatory reductions, no carbon trading and vaguely expressed objectives," EU Environment Commissioner Stavros Dimas said, according to his spokeswoman.

"The US approach has proven to be ineffective in reducing emissions," Dimas added of Bush's call for 15 major countries to agree by 2008 on a long-term goal for cutting emissions.

"Mandatory reductions, carbon trading and specific commitment and timetables have allowed the EU to reduce its emissions by 1.5 percent in 2005 under the 1990 levels, while the US has increased them by more than 16 percent in the same period," Dimas had said.

33. Fuel Economy Bill Passes Senate Committee but Major Issues Unresolved

On a voice vote, a collegial Senate Commerce, Science and Transportation Committee moved an aggressive fuel economy bill to join with energy measures from other committees on the Senate floor later in June, where, overwhelming votes in committee notwithstanding, the real public debate will occur.

Activists for the most part hail the measure as a step forward in controlling demand by the transportation sector while at the same time cautioning that the bill has too many "off ramps," or ways to sidestep strict compliance. As one activist put it, fuel economy bills have historically lacked an accountability framework and this legislation does not solve the problem.

The "Ten-in-Ten Fuel Economy Act" calls for a "combined [highway and city] fuel economy standard for model year 2020 of at least 35 miles per gallon." In addition, for the first time, medium-duty and heavy-duty vehicles would fall under fuel economy requirements. The bill would mandate an annual 4 percent improvement in fuel economy for these vehicles, from a 2009 baseline, starting with model year 2010.

One place where accountability is lacking in the bill is that the 35 mpg goal is "for the fleet of automobiles manufactured or sold in the United States," say fuel economy proponents. It is not the responsibility of each company to meet the goal, but rather the industry collectively.

Another issue that will undoubtedly come up on the Senate floor is the role of flexible fuel vehicles (FFV) and the credit they provide automakers under the current fuel economy system. The original "ten-in-ten" bill eliminates the FFV provision, which domestic automakers have been dependent on to meet Corporate Average Fuel Economy (CAFE) levels, particularly in the light-duty truck category. In last minute negotiations prior to markup, an amendment was accepted by consent to preserve the loophole.

34. US To Develop GHG Emission Regulations from Motor Vehicles (Maybe)

US President Bush issued an executive order directing the US Environmental Protection Agency (EPA) and the Departments of Energy (DOE) and Transportation (DOT) to begin developing regulations that would reduce greenhouse gas (GHG) emissions from motor

vehicles. The order introduces a new policy for the agencies to work together to protect the environment from GHGs emitted by engines, and to do so "in a manner consistent with sound science, analysis of benefits and costs, public safety, and economic growth".

The three federal agencies should prepare regulations for motor vehicles, nonroad vehicles, and nonroad engines that achieve this policy to the maximum extent permitted by law, and determined by the agencies to be practicable. The agencies should also consult with the Secretary of Agriculture whenever a regulatory action will have a significant effect on crops related to the production of renewable fuels, such as ethanol or biodiesel.

A starting point for developing the regulation will be the President's "20-in-10" plan, which calls for reducing gasoline use by 20% over the next 10 years. The new regulations should be developed by the end of 2008, which turns out to be exactly when President Bush leaves office. President Bush also called on Congress to support the regulations with appropriate legislation.

The new policy was triggered by the Supreme Court ruling that the EPA must take action under the Clean Air Act to regulate GHG emissions from motor vehicles, said President Bush, a position that the Bush Justice Department argued against.

In a press conference at the time of the Executive Order, the President said, "I set an ambitious goal in my State of the Union: to cut America's gasoline usage by 20 percent over the next 10 years. I call this goal 20-in-10, and I have said -- sent to Congress a proposal that would meet it in two steps: First, this proposal will set a mandatory fuel standard that requires 35 billion gallons of renewable and other alternative fuels by 2017. That's nearly five times the current target.

Second, the proposal would continue our efforts to increase fuel efficiency. My administration has twice increased fuel economy standards for light trucks. Together, these reforms would save billions of gallons of fuel and reduce net greenhouse gas emissions without compromising jobs or safety.

My proposal at the State of the Union will further improve standards for light trucks and take a similar approach to automobiles. With good legislation, we could save up to 8.5 billion gallons of gasoline per year by 2017, and further reduce greenhouse gas emissions from cars and trucks. ... I'm directing the EPA and the Department of Transportation, Energy, and Agriculture to take the first steps toward regulations that would cut gasoline consumption and greenhouse gas emissions from motor vehicles, using my 20-in-10 plan as a starting point."

35. Lawmakers Seek To Enhance EPA's Role In Future GHG Control Regime

Key members of Congress are introducing legislation giving EPA greater authority over tracking and managing the federal government's greenhouse gas (GHG) emissions, but which could signal a clash over whether EPA or DOE tracks emissions in any future climate change control regime.

Supporters of the bills say the legislation is intended to give EPA a significant role in any future GHG program and also signals concerns that DOE's voluntary reporting mechanism -- known as the 1605(b) registry -- does not adequately track emissions.

"Understanding the extent of the federal government's emissions, through the development of a registry, is the first step to ultimate emissions reduction," says one Senate supporter of the effort.

Senators Frank Lautenberg (D-NJ), Olympia Snowe (R-ME) and Bernard Sanders (I-VT) introduced S. 1411, the "Federal Government Greenhouse Gas Registry Act of 2007," which would establish an EPA office to measure and report on federal GHGs.

Meanwhile, Rep. Henry Waxman (D-CA), chairman of the House Oversight and Government Reform Committee, is poised to introduce a broader measure -- the Carbon-Neutral Government Act of 2007 -- that would require EPA to track federal GHG emissions, but also give the agency significant authority to enforce the law's goal of ensuring of freezing federal GHG emissions at 2010 levels and achieving carbon neutrality in 2050, according to draft bill language.

The bill would also require the federal government to adopt California's global warming emissions standards for vehicle fleets.

According to a discussion draft of the pending Waxman bill EPA would assume vast new authority in not only managing reporting of federal emissions, but in developing guidance for how all federal agencies would report those emissions to the agency and then overseeing individual agency plans for achieving reductions. "Not later than 18 months after the date of the enactment of this Act, the administrator shall promulgate annual reduction targets . . . for all agencies," the draft says.

The bill also requires the EPA administrator to issue annual guidance identifying vehicle makes and models that meet the new California emission standards under the portion of the bill that mandates federal procurement meet those standards.

36. Canada Proposes to Cut Greenhouse Gas Emissions, Air Pollutants

On April 26th, Canadian Environment Minister John Baird formally proposed a plan to reduce greenhouse gas emissions 20 percent from current levels by 2020 and emissions of other industrial pollutants 50 percent by 2015. The targets will be mandatory and will start to be phased in immediately, Baird said in a statement.

The plan will permit companies to choose from a variety of options to meet targets, including in-house reductions, contributions to a technology development fund, domestic emissions trading, and access to credits from overseas under the Kyoto Protocol's Clean Development Mechanism. In addition, companies that reduced emissions prior to 2006 will receive a limited, one-time credit for early action.

The plan also contains provisions to promote investment in technology, to regulate automobile fuel efficiency, to strengthen energy efficiency standards for a range of products, and to set standards for indoor air quality.

The plan's full name is "Turning the Corner: An Action Plan to Reduce Greenhouse Gases and Air Pollution."

"Canadians want action, they want it now, and our government is delivering. We are serving notice that, beginning today, industry will need to make real reductions," Baird said. "In as little

as three years, greenhouse gases could be going down instead of going up ... After years of inaction, Canada now has one of the most aggressive plans to tackle greenhouse gases and air pollution in the world."

The key element of the plan is a *Regulatory Framework for Air Emissions*, which contains specific reduction targets for greenhouse gases and other pollutants. The framework outlines greenhouse gas emissions intensity targets for 2010, and air pollution caps that will take effect in 2012 and 2015. Targets are expressed as reductions from 2006 levels. To support implementation, the government will require companies to report 2006 data under the Canadian Environmental Protection Act.

According to the plan, authorities will consult with industry and other stakeholder groups over the next few months and will finalize targets by this fall. The final framework will include sector-specific regulations for both general air pollution and greenhouse gases that will be published starting in spring 2008.

The government will review regulations every five years, and will seek to reach equivalency agreements with provincial governments.

The framework will set targets for each industry to improve greenhouse gas emissions intensity 6 percent annually from 2007 to 2010, and 2 percent annually after that. New facilities would have a three-year grace period.

"The emission-intensity approach ties targets to production. This means that firms will not be able to claim emission reduction credits by shutting down production for economic reasons or obtain credits for moving production out of Canada. Rather, credits can only be earned through cleaner production," it said. "More importantly, these rigorous targets will yield absolute reductions even as the economy grows."

For air pollutants, the framework calls for fixed emission caps for nitrogen oxides, sulfur oxides, volatile organic compounds, and particulate matter. In addition, fixed emissions caps will be set for certain other air pollutants, including benzene and mercury, from specific sectors. The government will also consider setting caps for other air pollutants as additional information becomes available.

The framework specifies the following national emissions caps for 2012-2015, based on the percentage reduction from 2006 emissions levels:

- nitrogen oxides, 600 kilotons, a 40 percent reduction;
- sulfur oxides, 840 kilotons, a 55 percent reduction;
- volatile organic compounds, 360 kilotons, a 45 percent reduction; and
- particulate matter, 160 kilotons, a 20 percent reduction.

Reduction targets will be enforced through compliance and penalty provisions established in the Canadian Environmental Protection Act, Environment Canada said. Enforcement officers will verify compliance with targets, and violations will be addressed through warnings, directions, tickets, orders, or prosecution. .

The framework also lays out provisions to reduce transportation emissions through fuel-efficiency standards and through the regulation of emissions from the rail, marine, and aviation sectors, as well as from off-road vehicles and engines.

37. British Columbia Joins U.S. Regional Initiative for Carbon Emissions Trading

British Columbia will work with California and four other Western U.S. states to develop a regional, market-based strategy to cut greenhouse gas emissions, Premier Gordon Campbell said on April 24th. Campbell signed an agreement on April 20th making British Columbia the sixth signatory of the Western Regional Climate Action Initiative (WRCAI), which the governors of Arizona, California, New Mexico, Oregon, and Washington formed in February.

By joining the initiative, Campbell agreed to participate in a process that will establish, by August 2007, a regional target for reducing emissions of carbon dioxide and other greenhouse gases.

The memorandum of understanding gives the six parties until August 2008 to design a regional multi-sector, market-based program to achieve the emissions reduction goal. It also requires them to participate in a multi-state registry to track and manage greenhouse gas emissions.

Campbell said British Columbia is "committed to creating a coordinated, integrated, market-based approach to meet our targets and we will work with our partners to develop a sensible, efficient system for registering, trading, and purchasing carbon offsets and carbon credits."

Earlier this year, British Columbia established a greenhouse gas emissions reduction goal that would require the province to cut emissions 33 percent below current levels by 2020, to 10 percent below 1990 levels. The government also committed to establishing new tailpipe emissions standards for new vehicles, to be phased in between 2009 and 2016.

All five of the U.S. parties have individual climate change initiatives and plans in place.

California legislation enacted in September 2006, the Global Warming Solutions Act (A.B. 32), requires the state to cut emissions to 1990 levels by 2020. Under the law, the state must develop regulations and other strategies to curb emissions. The measure was added to California's Health and Safety Code at Sections 38500-38599.

In October 2006, Gov. Arnold Schwarzenegger (R) issued an executive order calling for a market-based program, or emissions trading scheme, that could be linked to other regional and international trading programs.

38. Canada Seeks Continent-Wide Fuel-Economy Standards, Emission Curbs

Canada is watching closely as Congress tries to craft legislation to increase vehicle fuel-economy standards. The goal: uniform North American fuel-economy benchmarks for cars and light-duty trucks, a member of Canadian Prime Minister Stephen Harper's cabinet explained in an interview.

"We'd like to see this happen sooner than later," said Jim Prentice, chairman of the new Environment and Energy Security Committee, which is tasked with promoting the Conservative government's air pollution and climate agenda.

Canada's top transportation official, Lawrence Cannon, signed an April 26 memorandum of understanding with U.S. Transportation Secretary Mary Peters formalizing such a cross-border partnership. The memo calls on the two governments to meet periodically to share regulatory practices, research, modeling and analysis related to fuel-efficiency standards.

Canada -- the United States' top trade partner -- shares many air- and water-quality concerns, Prentice said. Pollution doesn't stop at the 5,522-mile border.

39. EPA Advisers Ramp Up Focus on Environmental Impacts of Biofuels

An EPA clean air advisory panel is setting up a workgroup that will address the possible environmental effects of biofuels, amid growing concern that the agency has not done enough to assess the impacts of increased production and use of ethanol and biodiesel.

Members of EPA's Clean Air Act Advisory Committee said at a May 10 meeting that they are creating a new workgroup that will make recommendations to the agency on mobile source and energy issues. These recommendations could include efforts to develop more robust "life-cycle testing" on the impact of biofuels at every stage of their production. The workgroup will also examine questions on hybrids and flex-fuel vehicles, agency officials said at the meeting.

The effort comes after EPA in April finalized a rule to mandate the increased use of gasoline blended with renewable fuels. The agency found the rule would reduce carbon dioxide emissions, but increase emissions of pollutants that contribute to ozone.

The National Advisory Council for Environmental Policy & Technology (NACEPT), a major EPA advisory panel, sent a letter in February to EPA Administrator Stephen Johnson, urging the appointment of an agency-wide biofuels coordinator. This official could help the agency go beyond its statutory mandate in assessing the impact of biofuels on water quality and supply, fertilizer and pesticide use and wildlife habitat preservation, the panel says in the letter.

Agency officials said at the meeting that they were working with NACEPT panelists to ensure the new workgroup does not overlap with the work that NACEPT is already doing.

The new CAAAC focus on biofuels comes as members of Congress are also insisting that increased use of biofuels not exacerbate climate change impacts. Senate energy committee chief Jeff Bingaman (D-NM) recently marked up a bill increasing EPA's current biofuels mandate from 7.5 billion gallons to 35 billion gallons, while requiring that the greenhouse gas impacts of the fuel be at least 20 percent lower than gasoline. Bingaman's bill could be considered on the Senate floor in the coming weeks.

Senate environment committee chief Barbara Boxer (D-CA) recently introduced legislation that also increases the fuels mandate along with a similar greenhouse gas performance standard. Boxer's bill also requires the National Academy of Sciences to periodically review the environmental impacts of the fuel use, and directs EPA to issue rulemakings based on the recommendations.

40. Old Diesel Trucks in British Columbia to Require Oxidation Catalysts

The British Columbia government has introduced measures requiring all older commercial diesel trucks to install particle-reducing catalysts to reduce vehicle emissions. The new regulations, will apply to all heavy-duty diesel vehicles built before 1993. Although they make up only 7,200 of the million-plus vehicles in the province, they account for 6.8 per cent of all particulate matter pollution from all sources, including industry, according to the Environment Ministry. Vehicles built before 1993 emit up to 60 times as much particulate matter than new diesel vehicles.

The catalysts are expected to reduce emissions from older trucks by 50 per cent, trapping an estimated 60 million tons a year of particulate matter that would otherwise pollute the air.

The regulations, announced by Environment Minister Barry Penner, will require owners to install what is known as a diesel oxidation catalyst by 2009. The units cost between \$1,200 and \$2,500.

The regulation only affects commercial and government-owned trucks weighing 5,000 kilograms or more. Recreational vehicles, construction equipment and unlicensed non-road vehicles are not affected.

The measure will mainly affect smaller trucking operations such as dump trucks rather than fleet trucks, according to B.C. Trucking Association president Paul Landry. Long-distance truckers have mostly newer vehicles that have new technology installed to reduce emissions, he said.

Air pollution costs the B.C. health care system \$85 million a year, according to a news release issued by the environment ministry. A study by the B.C. Lung Association attributed 250 deaths a year to poor air quality in B.C.

41. Appeals Court Denies EPA Attempt to Weaken Air Quality

A panel of federal judges denied appeals by the U.S. Environmental Protection Agency and industry to overturn the same court's December, 2006 ruling that struck down the agency's rule attempting to weaken protections against harmful smog-forming pollution.

Ozone is associated with asthma attacks, coughing, wheezing, and other respiratory illness. Higher smog levels in a region are frequently accompanied by increased hospitalization and emergency room visits for respiratory disorders. Hundreds of counties across the country currently have unhealthful levels of smog, which limits outdoor activities, increases hospitalizations, and puts millions of Americans at risk for respiratory problems.

The decision reaffirms that EPA violated the Clean Air Act by relaxing limits on ozone, or smog pollution, from large power plants, factories and other industrial sources.

The U.S. Court of Appeals for the District of Columbia denied the EPA and industry petitions for rehearing, and actually clarified in even stronger terms that weakening air protections is illegal under federal law. The court characterized the industry's desired readings of the law as a "glaring loophole" that nothing suggests Congress intended.

Significantly, recognizing the harm from EPA's delay, laxity and lawlessness, the court also "urged" EPA to "act promptly in promulgating a revised rule that effectuates the statutory

mandate by implementing the eight-hour [ozone] standard, which was deemed necessary to protect the public health a decade ago."

Earthjustice successfully represented a group of public health and environmental organizations - the American Lung Association, Environmental Defense, the Natural Resources Defense Council and the Sierra Club -- that challenged the EPA rule and then subsequently defended the court's December decision that overturned the rule. Also challenging the EPA rules were the Clean Air Task Force (on behalf of the Conservation Law Foundation and Southern Alliance for Clean Energy), Louisiana Environmental Network, South Coast Air Quality Management District, and a coalition of states including Massachusetts, Delaware, Maine, New York, Pennsylvania, and the District of Columbia.

EPA and industry groups had tried to overturn the decision by seeking rehearing in March. The environmental and public health groups, along with the states, argued that EPA's original rule and requested appeal made no sense, because the agency's unlawfully weak ozone rule came after EPA had found that the previous ozone standard was too weak to protect public health.

The 1990 Clean Air Act required stronger anti-smog measures in cities violating ozone standards, including limits on pollution from new and expanded factories, requirements for annual cuts in smog-forming emissions, and caps on truck and car exhaust. In 1997, EPA found that the then-existing "1-hour" ozone health standard wasn't strong enough to protect health, and adopted a new "8-hour" standard to provide greater protection. Paradoxically, the agency in 2004 adopted rules that weakened pollution control requirements for areas violating both the old and the new standard. That decision triggered the court challenge leading to that rule being struck down in December, 2006, and the EPA-industry appeals being rebuffed today.

42. States Protest Vehicle Emissions Limit Bill

Governors from eight U.S. states protested to Congress about possible legislation that they claim will limit their efforts to cut automobile and small-truck emissions. If passed as written in draft form, the legislation would wipe out California's landmark effort to cut auto and light-truck greenhouse gas emissions by as much as 30 percent by 2030.

California and seven other states are fighting a proposal by Rep. Rick Boucher, a Democrat from coal-producing southwest Virginia that would prevent the U.S. Environmental Protection Agency from allowing California to receive a waiver from federal rules so it could implement more stringent state requirements.

Eleven states have adopted requirements that match California's and six others are considering it, said BreAnda Northcutt, spokeswoman for the California Environmental Protection Agency.

If the EPA grants California's waiver, the other states would be free to implement similar emissions-cutting standards.

Seven states say they want to follow California in requiring that cars and light trucks reduce climate-changing greenhouse gas emissions -- primarily carbon dioxide -- by 18 percent by 2020.

"We urge you to pursue legislation that instead enhances and complements the efforts already under way in our states," the eight governors said in a joint letter to Boucher. "This bill," the

governors said, "will pre-empt California's passenger vehicles and light duty truck emission standards."

The eight states signing the letter were California, New York, Pennsylvania, Massachusetts, Washington, Arizona, Oregon, and New Mexico.

The governors said the bill would deny not only states' rights to adopt California's vehicle emissions standards, a right granted by the federal Clean Air Act, but would also eliminate the EPA's regulatory authority over greenhouse gases as a pollutant. "This amounts to an about-face reversal of the Supreme Court decision identifying CO₂ as a pollutant within the scope of the Clean Air Act," they said.

The 11 states that have adopted California's requirements are New York, Pennsylvania, New Jersey, Massachusetts, Washington, Maryland, Oregon, Connecticut, Maine, Rhode Island and Vermont, according to the California Energy Commission.

The six states that are considering adopting California's requirements are Illinois, Arizona, North Carolina, Colorado, New Mexico and New Hampshire, according to the California EPA.

43. Next to Gasoline, Diesel Fuel Looks Like a Bargain

For the past two years, diesel sold significantly higher than regular unleaded, but that trend has been reversed this spring. "It's not necessarily that diesel has dropped. It's that gasoline has just spiked so much," said Doug MacIntyre, a senior analyst with the federal Energy Information Administration in Washington D.C.

Recently, diesel sold for as low as \$2.79 per gallon in the Twin Cities, more than 30 cents cheaper than regular unleaded gasoline.

With diesel prices seemingly more stable than gas, automakers are trying to sell more diesel vehicles in the U.S., said Joe Barker, an analyst with Michigan-based CSM Worldwide. "Diesel vehicles still are not resonating well among the masses in the U.S.," he said. "There is a stigma attached to diesels. The general perception among car buyers is that diesels are loud and you get a lot of exhaust fumes. They remember the diesels of yesteryear. The diesels of today are far more sophisticated."

But they're not cheap, Barker added. A diesel vehicle, which has better fuel economy, costs about \$2,000 more than a gas-powered car of the same make, he said. "It's not a strong value proposition right now," Barker said.

And maybe the fuel itself isn't such a bargain anyway. George Billows, executive director of the Illinois Trucking Association, laughed at the idea, saying truckers are paying twice as much as they did a few years ago. "The average truck driver is using about 400 gallons a week ... or about 2,000 gallons a month for one person. You're looking at \$6,000 just for gas," he said.

Large companies, he said, are spending hundreds of thousands each month and passing on charges through fuel surcharge that boost delivery fees as much as 20 percent.

As a result, the cost of common household goods, business materials and everything else often rises along with diesel prices. The world's freight industry runs on diesel — semis, trains, barges, ships and others — as do the farming and construction industries.

Until the last couple years, diesel prices were historically lower than gas, according to EIA figures, but that changed as global demand increased and refiners transitioned to low-sulfur diesel.

That trend seems to be reversing, however, as diesel supplies are high — for now, MacIntyre said.

“The market for diesel fuel globally is tight and will remain tight,” he said.

44. Ford Regrets Missed Environmental Chance

Ford Motor Co. missed a chance to seize the lead in addressing environmental concerns and allowed its sedan styling to go stale in recent years, Executive Chairman Bill Ford Jr. said in remarks to a group of business and civic leaders. "My only regret now is that we didn't move further faster," said Ford, who stepped down as chief executive last September.

Ford said the No. 2 US automaker had not been aggressive enough in revamping the styling of its passenger cars as it tried to shift away from a reliance on pickup trucks and sport utility vehicles where it had held a highly profitable franchise. "We didn't stretch enough in the past few years," Ford said. "I think as we got back into the car business we weren't perhaps bold enough."

The remarks by Ford marked his fullest public commentary on his own troubled five-year tenure as the automaker's chief executive.

Bill Ford said his long-running personal interest in environmental causes had once put him at odds with the prevailing viewpoint in the US auto industry. "In many parts of the auto industry, I was viewed as some kind of crazy radical," he said. "And when I talked about the environment 20 years ago -- or frankly even five years -- many people thought I was eccentric at best or perhaps incredibly naive."

While Ford said he was proud that the automaker had rolled out a hybrid Escape SUV on his watch and rebuilt its Rouge Assembly plant in a way that won praise from environmentalists, the automaker had also missed a chance to do more.

ASIA-PACIFIC

45. Japan to Settle Lawsuit Brought by Victims of Tokyo Auto Emissions

On May 30th, Japanese Prime Minister Shinzo Abe told Tokyo Gov. Shintaro Ishihara that the Japanese government is preparing to pay ¥6 billion (\$49 million) to victims of air pollution in an out-of-court settlement of a Tokyo air pollution lawsuit, spokesmen for the prime minister's residence and the Tokyo municipal government confirmed on June 1st. Abe said the case needed to be settled promptly to ease the pains of the victims.

Under former Prime Minister Junichiro Koizumi and his predecessors, the government had rejected victims' demands for compensation by arguing that the links between state policies and their illnesses were not scientifically established.

Last year, the Tokyo government issued an estimate that the victims would need ¥4 billion annually for five years and asked the state to foot one-third of the cost, while asking seven automakers and others to pay one-sixth and the governmental Shuto Expressway Corp. to pay one-sixth.

Under Abe's decision, however, the state will allocate ¥6 billion from a ¥51 billion Pollution Health Damage Prevention Fund, which contains funds from state and local governments and the private sector, according to the Tokyo government spokesman.

The lawsuit was initiated in May 1996 by a group living near major traffic arteries who suffered from various respiratory illnesses. Through February 2006, a total of 633 plaintiffs joined the lawsuit, suing Toyota Motor Corp., Nissan Motor Co., five other automakers, the Shuto Expressway Corp., and the state.

In October 2002, a local court confirmed the link between the illnesses and auto emissions and ordered the municipal government and the state to pay a total of ¥79.2 million to seven patients living within 50 meters of major roadways.

This February, the government indicated it would seek to settle the case.

46. Japanese Move to Promote Advanced Vehicles, Next-Generation Fuels

On May 28th, Japan proposed a new initiative to promote fuel cell and electric vehicles and to develop next-generation auto batteries, clean diesel engines, and biofuels.

The initiative, announced by the Ministry of Economy, Trade and Industry, is part of a push to reduce Japan's dependence on fossil fuels for vehicles from nearly 100 percent to below 80 percent and to improve energy efficiency 30 percent by 2030, according to an official of the Energy Policy Division of the ministry's Agency of Natural Resources and Energy.

The initiative will involve government and private partners to develop next-generation batteries for hybrid and electric vehicles, clean diesel engines, hydrogen fuel cells, and biofuels with the overarching goal of creating "the world's most earth-friendly motor vehicle society," the official said.

The battery project, for which METI would earmark up to \$200 million over five years, calls for the development of compact auto batteries during the budget period, compact electric vehicles (EVs) by 2010, plug-in EVs by 2015, and the commercial introduction of EVs by 2030, as well as the positioning of charge stations across Japan, according to the announcement.

The project envisions lowering the average EV price to about \$30,000 from \$100,000 now, and extending the cruising distance to 599 kilometers per charge from 100 km now.

For the hydrogen fuel cell project, the ministry budgeted \$265 million for fiscal year 2007 and plans to earmark comparable sums for subsequent years, the official said. It aims to implement

a pilot hydrogen/FC project over the coming years but did not specify the target year except to mention the year 2030 as the target for lowering the FC vehicle price to make it comparable with gasoline-powered vehicles.

On clean diesel engines, the ministry plans to spend \$200 million over the five years for developing next-generation diesel fuels and to support private sector research and development of clean diesel engines in or after 2009.

The biofuel project features the development of higher quality fuels for safety and vehicle performance and aims to lower the price to about 33 cents per liter, or one-third the current price, by 2015.

The initiative also envisions automated systems to enable accident- and congestion-free transportation as well as substantially better vehicle mileage to reduce carbon dioxide emissions by 2030.

METI is also considering plans to subsidize the purchase of household fuel cell electricity generators from fiscal 2009, which begins in April 2009, ministry officials said.

Already, many Japanese appliance makers are selling and leasing household FC units, but prices typically are now about \$35,000, they said. With government subsidies, the ministry wants to lower the price to less than \$10,000 in 2009 and about \$5,000 around 2015, the officials said.

The household FC units help reduce home electricity consumption by as much as 30 percent and the annual electricity bill by an average of \$500, according to an official of Matsushita Electric Industrial Co.

47. Reports Say Toyota to Delay Launch of Next Prius; Stay with NiMH

Toyota Motor Corp. has decided to postpone the launch of the third-generation Prius hybrid model by half a year to the spring of 2009, according to industrial daily Nikkan Kogyo Shimbun.

The world's biggest automaker has not officially announced the timing of the launch, but a consensus had built among industry watchers that the popular gasoline-electric car would be remodeled by late 2008.

The Nikkan Kogyo said Toyota decided to take more time to ensure quality after it decided to forgo replacing the nickel-metal hydride battery used in the hybrid system with a lithium-ion battery for the first version of the new model. Toyota and battery partner Matsushita Electric Industrial Co. are developing a lithium-ion battery that many expected would power the motor in the next Prius. The paper had said last month that those plans were also delayed due to safety concerns.

A Toyota spokesman declined to confirm the delay of the Prius launch, saying it was not possible to move back a plan whose timing had not been set. "Our policy is to roll out any model when all the conditions are in place," he said.

The first Prius debuted in 1997 as the world's first mass-market hybrid car, and was vastly improved for the second generation launched in late 2003.

By far the best-selling hybrid car on the road today, the Prius has almost single-handedly boosted Toyota's image as a "green" carmaker, also helping drive sales of other cars. Toyota is boosting production of the Prius by 40 percent this year to 280,000 units, although margins on the car are believed to be thin due to the high cost of the hybrid system.

Toyota sold 186,000 units of the Prius in 2006, and 313,000 hybrid vehicles in total.

48. Honda Reportedly to Sell Diesel Cars in Japan by 2009

Honda Motor Co. plans to sell diesel-fuelled cars in Japan by 2009, the Nikkei business daily said, a move that could reignite the all but dead diesel passenger car segment in the world's third-biggest auto market. While diesels make up more than half of new cars sold in Europe due to their relatively low emission of carbon dioxide, a greenhouse gas, they have mostly been wiped out from passenger cars in Japan due to their poor image as dirty and loud.

But the powertrain is slowly gaining traction around the world since it typically gets 30 percent better mileage than gasoline engines, while tailpipe emissions have become much cleaner with new technology.

A spokesman at Honda, Japan's No.2 automaker said no decision had been made on whether or when to introduce a diesel car in Japan, repeating the company's stance that it was simply under consideration.

Last year, Honda said it had developed a new and simple diesel powertrain that is as clean as gasoline-fuelled cars and would mount on it on a car for the US market by 2009. The Nikkei said Honda planned to introduce diesels also in Japan from 2009, and might speed that up to 2008. The engines would first be used in key models like the CR-V crossover and the Accord sedan, it said.

Executives at many Japanese automakers, including Honda President Takeo Fukui, have over the past few years warmed to the idea of a return of diesel-fuelled cars in Japan. Nissan Motor Co. and Subaru-maker Fuji Heavy Industries Ltd. are also keen to see diesels challenge the green image that gasoline-electric hybrids enjoy.

Toyota Motor Corp., which controls more than 40 percent of the Japanese market, has been notably lukewarm on diesels for Japan and the United States, saying the cost of developing an engine clean enough to meet the upcoming strict emissions standards there would be prohibitive.

DaimlerChrysler AG is so far the only automaker to offer a diesel passenger car in Japan, through the Mercedes E 320 CDI sedan. The German automaker has said orders have surpassed expectations, hitting 1,000 in April since its launch in August.

Diesel cars' weakness has been higher exhaust levels of nitrogen oxide (NOx), and carmakers are racing to come up with ways to meet what will be the world's toughest emission standards to be introduced in the United States this year.

Honda's new diesel drivetrain generates and stores ammonia within a two-layer catalytic converter to turn nitrogen oxide into harmless nitrogen.

49. Japan Drafting Plans to Develop Ethanol Production

Japan's Ministry of Economy, Trade, and Industry is drafting plans to build up the country's market for ethanol from sugarcane and other tropical plants, officials at the ministry's New Energy Policy Division said on April 23rd. Japan is considering a program to boost bioethanol consumption to 800 million liters a year by 2010 to lessen dependence on fossil fuels. Japan recently began selling ethanol-blended gasoline at selected pumping stations in big cities, but the country currently produces 300 million liters of bioethanol a year. The officials said the ministry would seek to partner with growers for sugarcane and other plants in the Philippines, Malaysia, and Indonesia within this fiscal year and would rally participation of Japanese trading companies and other businesses. The plan would ask local farmers to sign long-term contracts for production. The ministry envisions import prices would be around 80 yen (\$0.67) per liter, before tax, compared with 60 yen for gasoline, but it emphasized that the price is one-third lower than domestically produced bioethanol.

50. Japanese 'Eco Innovation' Proposal Urges Steps to Boost Resource Efficiency

On April 23rd, a Japanese government panel issued a report with wide-ranging recommendations to promote technology to improve energy security, mitigate climate change, and reduce waste. The proposed "Eco Innovation" program contains provisions to encourage private-sector research and development, to advance "core" scientific research, to help find government and commercial markets for new technologies, to improve related training programs, and to support smaller businesses in related fields. The proposal was drafted by the Industrial Structure Council of the Ministry of Economy, Trade, and Industry (METI).

An official at the ministry's Industrial Technology Policy Division said that METI would budget funds to support the program.

The ministry now plans to hand the proposal to Prime Minister Shinzo Abe's Council on Economic and Fiscal Policy, which is scheduled to finalize the next national macroeconomic policy in June.

The proposal calls for promoting techniques to generate energy from industrial waste and for developing "compact factories" that can better respond to shifting market demands.

It also calls for developing new fuel technologies to reduce dependence on fossil fuels.

The proposal also suggests establishing "zero emission towns" in which heating, cooling and other energy requirements would be supplied without the use of fossil fuels. People living in those towns would lease automobiles, appliances, furniture, and other products so that they would be released from concerns about waste disposal.

51. Thai Cabinet Endorses Tax Incentives for Environmentally Friendly Cars

On June 5th, Thailand's Cabinet approved a tax incentive for manufacturers of environmentally friendly vehicles. Following the Cabinet session, Deputy Prime Minister Kosit Panpiemras said

legislators had endorsed a concessionary excise tax rate of 17 percent for vehicles meeting the government's "eco-car" criteria. The excise tax applied to most cars ranges from 30 percent to 50 percent.

According to the Ministry of Finance, which first proposed the eco-car program, the special rate should apply only to cars that meet Euro IV emission standards and consume no more than one liter of fuel every 20 kilometers. They also must have engine capacities of 1,300 cubic centimeters or less for standard cars, or below 1,400 cc for diesel models.

Minister of Finance Chalongphob Sussangkarn told reporters the excise tax cut would not take effect until 2009, a move aimed at defending the market from imports and giving local companies time to adjust their manufacturing strategies.

The excise tax concession is part of an incentive package for carmakers that aims to make Thailand, already a major regional center for auto production, a fuel-efficient vehicle hub.

The final criteria and benefits of the eco-car initiative are due to be unveiled this month by the Board of Investment. Officials have hinted in the past that it could include corporate income tax cuts for participating manufacturers.

Panpiemras, who also is Thailand's industry minister, said at least three companies have signaled their intentions to join the program, although he declined to identify them by name. Several carmakers with a large presence in Thailand--including Ford, Toyota, and Honda--have publicly expressed interest in the eco-car project.

52. Developments Within China

A. China to Require Authorities To Be More Open With Environmental Data

China's Cabinet has issued regulations to require government agencies at all levels to be more transparent with information, including environmental information. On April 25th, Vice Minister Pan Yue of China's State Environmental Protection Administration said that the new rules will require the agency to publicize 17 categories of environmental data. The regulations took effect May 1, 2007.

The information slated for public release is also to include data on companies and government enterprises that violate environmental standards. Authorities are expected to publish the data within 20 working days after an incident, or 15 days after a request for information, Pan said. Local governments will be expected to publicize information about incidents via local media within 30 days.

The rules do not specify how information will be made public, but say that a majority of people should have ready access. The new regulations also give members of the public the right to sue over withheld information, according to Pan.

"By requiring the government and polluting enterprises to release pollution information, the new rule will improve public access to relevant information," said an editorial in the official China Daily. "This will put a great deal of pressure on the polluters."

B. National Environment Watchdog Calls For Sharper Teeth

Pan Yue, vice-minister of the State Environmental Protection Administration (SEPA), has called for the introduction of a new regulation that would require an environmental impact assessment to be carried out prior to the commencement of any major construction project.

Despite being the country's top environment watchdog, the SEPA has little power to enforce environmental laws at a local level. A file issued last year by the State Council said that the SEPA could refuse "approval of new projects" in its efforts to protect the environment. "But we lack legislation in the field to give us the power to issue the bans," Pan told People's Daily during a recent interview.

He said SEPA was often questioned by companies over its authority to issue bans on new projects. Pan called on the State Council to issue a regulation on environmental impact assessments soon to provide a sound legal foundation for the ministry's work.

In January, the SEPA refused approval for dozens of new industrial projects as the government sought to strengthen environmental controls, reduce pollution and control unfettered investment. The list included four major power projects by the country's power giants, including China Huaneng Group and China Guodian Group, in a bid to hit back at the heavy polluting power industry. The bans were lifted in April, however, after the plants complied with the ruling and shut down their polluting units.

"The ban, though only short-lasting was fruitful. The mechanism of banning will hopefully be standardized under the framework of legislation," Pan said.

Companies in the heavily polluted and accident-plagued regions along the Huaihe River in East China and Songhua River in Northeast China will likely become the focus of a new round of bans to be initiated soon, Pan said.

He said that the ban in January helped ensure the smooth implementation of orders from the central government, and accelerate industrial restructuring. Authorities are trying to avoid a repeat of 2006 when the country missed its target to reduce key emissions by 2 percent as the economy grew faster than expected.

Environmental authorities said emissions of sulfur dioxide, the chief cause of acid rain, grew to 25.9 million tons in 2006, up 1.8 percent from 2005. China aims to reduce major emissions by 10 percent between 2006 and 2010.

C. China Shut 3,176 Polluting Factories in 2006

China's State Environmental Protection Administration ordered the closure of 3,176 businesses last year for pollution violations as part of a campaign to clean up industrial areas, state media reported on May 7th. As part of the campaign, SEPA inspected 720,000 plants and conducted detailed investigations on 28,000. SEPA and five other government agencies also suspended licenses for 163 projects that failed environmental checks, according to the officials Xinhua News Agency. China has conducted such sweeps in the past, but in many cases plants that were ordered to shut were subsequently reopened. In a speech May 6, Premier Wen Jiabao called for more curbs on polluting industries through tax policies and other measures. Detailed plans have not been released but Wen, according to a text of the speech, said controls would include discharge taxes in some areas and price reforms for natural gas and water consumption.

D. China Sets Energy Efficiency as Performance Target

Chinese government leaders and major companies were put on notice that energy efficiency and pollutant reduction will be key factors in their performance assessments, Xinhua news agency said. They should be set as indexes for assessing economic and social development and the performance of government and company leaders, the State Council, or cabinet, warned in a circular.

"They will receive a negative performance assessment if they fail to reach goals for energy efficiency and pollutant discharge reduction regardless of achievements in other fields," Xinhua said.

Last year, the government set a goal to reduce energy consumption per unit of gross domestic product by 20 percent and major pollutants discharge by 10 percent in the 11th five-year plan period ending 2010. Under the goal, China had to cut energy consumption per unit of GDP by 4 percent and discharges of major pollutants by 2 percent last year. But it fell short of the targets.

"Greater efforts for efficiency and discharge reduction are urgently needed to deal with global weather changes and a responsibility we should shoulder," the circular added. "If we fail to take immediate measures to reverse the situation, it will be difficult for us not only to make obvious progress in energy saving and discharge reduction this year, but also to reach the overall goal for the 11th five-year plan period," the circular said.

The State Council issued the General Work Plan for Energy Conservation and Pollutant Discharge Reduction. Xinhua said the major targets for the year 2010 included:

- Energy consumption per 10,000 Yuan of gross domestic product reduced from 1.22 tons of standard coal in 2005 to below 1 ton, down by about 20 percent;
- Water consumption per unit of industrial value added reduced by 30 percent;
- Discharge of major pollutants reduced by 10 percent;
- Discharge of sulfur dioxide reduced from 25.49 million tons in 2005 to 22.95 million tons;
- Chemical oxygen demand reduced from 14.14 million tons in 2005 to 12.73 million tons;
- The ratio of national urban treated sewage reaching at least 70 percent;
- The ratio of comprehensive utilization of industrial solid wastes reaching 60 percent or more.

E. Beijing to Shut Down Heavy Polluters During Games

Beijing will shut down smoke-belching factories and ban thousands of cars from city streets to improve air quality during next year's Olympic Games, according to a senior city official.

Vice Mayor Ji Lin said other special measures would include a ban on dust-causing earthworks at construction sites.

Ji said 120 billion Yuan (US\$15.69 billion) had already been invested in environmental improvements over the past decade and at least another 25 billion Yuan would be spent over the next year to clean the city's air. "Beijing attaches high importance to environmental protection and much investment and progress has been made," he told a news conference. "But problems still exist and there is a long way to go to meet the higher standards needed for the Olympic Games. We are confident we will achieve our goals."

Improving air quality is one of the biggest issues facing Beijing. Despite improvements in the past few years, the city is still regularly blanketed in smog.

Some polluting factories have been given time limits to reduce emissions and others will have restricted operations from Aug. 8 to 24 next year. "During the Games we will have stricter measures," Ji said. "Some companies will adjust their production time, some will have to reduce production and some will be suspended."

Just how many of the city's three million cars will be kept off the streets had yet to be decided, Ji said. "We also have to consider what impact these measures will have on people's lives," he said.

The three millionth vehicle owner got his car registered June 1st in Beijing, ushering a new era in the municipal development, which is now influenced by cars.

"Gas emissions contribute a lot to air pollution and restrictions on vehicle emissions will be the city's priority to improve Beijing's air quality," said Ji Lin.

Statistics from the Beijing Environmental Protection Bureau said one third of the total amount of air pollutants come from vehicle emissions.

An emission monitoring device placed in an official vehicle parked near Xi Zhimen intersection, one of Beijing's busiest junctions, caught three vehicles with higher than average emissions only within half an hour.

The vice mayor added they will urge petrol stations around the city to improve their facilities to recycle oil and gas that is emitted into the air when people fill their cars with petrol. Ji explained the gas create bromine water, one of the air pollutants. He did not clearly explain how the recycling would work.

Eighty percent of the three million vehicles in Beijing are privately owned, with about 1,000 new cars entering the roads everyday.

"It is the result of the city's booming economy," Ji said. "It is a common problem for many other big cities home and abroad, and we need to exchange our experiences in tackling the problem."

According to the Beijing Municipal Committee of Communication, public transit consists of 30.2 percent of the total traffic flow, while private car transport is nearly the same at 29.8 percent.

In New York City, public transportation accommodates 76 percent of the total traffic flow, and 91 percent in Tokyo, 40 percent in London, and 70 percent in Paris.

But Ji denied any kind of restrictions on the number of private cars on Beijing's roads. Instead, the government will accelerate the improvements in the public transportation system to attract more people onto bus and the subway network.

"What we should do is to mark off exclusive lanes for buses and lower fares to attract more people onto the buses - to make them believe they would travel as fast and as comfortable as they would in private cars," the vice mayor told China Daily. He added new subway lines opening later this year would divert more passengers underground.

Beijing staged a rehearsal to make traffic as smooth as possible for the Olympics when the Sino-African summit was held last November. Eighty percent of company- or government-owned cars were banned from the roads to make way for the summit, creating clearer streets and clearer skies.

Private cars were not forced off the roads during the summit. But some non-official auto clubs and environmental protection organizations took initiatives to encourage their members and people not to drive.

Tens of thousands of coal-fired boilers, ovens and furnaces have been converted to use natural gas, while 50,000 old taxis and 10,000 buses will be taken off the roads by next August.

Action has been taken to ensure that the city's many construction sites do not add to the choking dust in the air, while cement factories and brickyards have also been shut down.

The Beijing Coking and Chemical Works has been permanently closed and the city's worst polluter, the Shougang steel works, has closed a blast furnace and a coke oven as it begins its relocation to a new site outside the city.

Ji said there would be no need for Olympic delegations to bring their own experts and equipment to measure air quality in Beijing during the Games. "At Olympic venues and villages, we will set up mobile air quality stations and the information from those will be provided to anyone who wants it," he said.

F. Car Exhaust Fumes Blamed for Air Pollution in Beijing

Most Beijing residents point to autos as the main factor in the city's air pollution, according to a new survey. The survey by the Beijing municipal environment protection publicity center and the municipal social psychology institute was carried out with 1,520 respondents.

More than 90 percent of the surveyed attribute air pollution to auto exhaust fumes, and 87 percent also complained about traffic noise, says the report, which indicates that air pollution and noise are the two main gripes of Beijing residents.

Over 1,000 new vehicles are registered in Beijing every day, and the city expects to have 3.3 to 3.5 million vehicles circulating by August next year, when the Olympic Games begin.

G. China Releases National Plan on Climate Change

China is the first developing country to establish a national action plan on climate change and show its willingness to act as a responsible one in the combat against global warming, according to Ma Kai, minister in charge of the National Development and Reform Commission.

China was willing to tackle the threat of climate change but its "first and overriding priority" must be economic development, according to the plan, which sets out the country's broad policies on global warming and greenhouse gas emissions.

The plan states that China is willing to strengthen international cooperation on climate change, but any regional cooperation should "complement" the Kyoto Protocol, the UN-sponsored treaty.

The plan puts the country's 2004 emissions of greenhouse gases at an equivalent of about 6.1 billion tons of carbon dioxide.

In the plan, China said it aims to keep industrial emissions of powerful greenhouse gas nitrous oxide stable at the 2005 levels in 2010.

"According to tentative estimates by experts from China, China's total GHG emission in 2004 is about 6,100 million tons of carbon dioxide equivalent (5,600 million tons of net emissions)," the plan said.

Through more use of hydropower, wind and biomass energy, boosting nuclear power generation and increasing the efficiency of coal-burning stations, China hopes to reduce greenhouse gas emissions by the equivalent of 950 million tons of carbon dioxide, the plan said.

H. Sinopec Completes Beijing Facility Capable Of Euro IV-Compliant Fuels

China Petroleum & Chemical Corp (Sinopec), Asia's largest refiner, has completed a facility at a Beijing plant capable of producing low-sulfur fuel ahead of the launch of stricter city emissions regulations for the Olympic Games, the China Petroleum and Chemical Industry Association said.

Yanshan refinery, the main fuel supplier to Beijing, has installed a new 1.2 million ton-per year desulfurization facility capable of cutting sulfur content in gasoline and diesel to below 10 parts per million (ppm), it said.

The gasoline produced by Yanshan refinery will meet the Euro IV emission standard when it comes into operation.

In the run-up to the Olympics, fuel in the capital city needs to be made Euro IV-compliant at 50 ppm sulfur content. Most of the country is Euro II-compliant at 500 ppm and some cities are Euro III-compliant at 150 ppm. China's revised gasoline standard will lead to the withdrawal from the market of gasoline with sulfur levels of up to 500 ppm on Dec 31, 2009.

Vehicles with excessive emissions will be fined Dh300 as per reports presented by inspectors of the Environment Protection and Safety Section of the municipality.

I. China to Reduce Railway Pollution by 10 Pct By 2010

China will reduce pollution caused by railways by ten percent by 2010, according to a blueprint composed by the Ministry of Railway. According to the 11th five-year railway environmental protection plan, which set goals from 2006 to 2010, emissions of sulfur dioxide in the railway sector will be limited to 41,818 tons in 2010.

Meanwhile, it plans to make green with plants along 30,000 kilometers of railway.

The ministry will strengthen inspection on environmental protection in railway construction projects, speed up managing of passenger train waste and develop advanced technologies, the ministry said without giving further details.

J. Report: Pollution in China Continues to Rise but at Slower Rate

China's air and water pollution levels continued to grow last year but at a slower pace than previously, according to a report from the State Environmental Protection Administration released on June 5th. SEPA Vice Minister Zhang Lijun told a press conference that the latest figures indicate China is about to reach a "turning point" in controlling and reducing pollution.

Zhang said there will be some actual reductions by the end of the year, though he offered no details as to how much pollution levels would be reduced, or even what types of pollution would be affected.

Zhang highlighted slowing growth in two major pollution indicators: sulfur dioxide as a measure of air emissions, and chemical oxygen demand as a measure of water pollution.

The latest figures show that China's sulfur dioxide emissions grew 1.5 percent in 2006, down from a growth rate of 13.1 percent in 2005.

Chemical oxygen demand meanwhile increased 1.0 percent last year, down from 5.6 percent in 2005.

China's central government, in its latest work plan, targeted a 10 percent reduction in overall pollution emissions between 2006 and 2010. But the country missed its targets last year as discharges of most major pollutants increased, according to data released earlier by SEPA.

K. Two Thirds of Chinese Cities' Water, Air Polluted

Nearly two-thirds of Chinese cities suffered from air pollution last year and had no centralized sewage treatment facilities, state media has reported. Only 37.6 percent of 585 cities surveyed had air quality "indicating a clean and healthy environment", down 7.3 percentage points from 2005, the China Daily said, citing a report by the State Environmental Protection Agency (SEPA).

Thirty-nine cities, many scattered across the northern coal-rich province of Shanxi and China's northeastern rustbelt province of Liaoning, suffered "severe" air pollution, the paper said.

"The report also found that the ratio of quality water in the major urban areas, either for drinking or industrial use, had dropped by 7.24 percent," the paper said.

Two hundred cities had no "centralized sewage management system" and 187 had no garbage disposal plants, it said.

The report comes as the capital Beijing on Tuesday was shrouded in thick smog, which local media said was exacerbated by smoke blown into the city from crop burning in neighboring

provinces. On Monday night, an index measuring air pollution from Beijing's southern Daxing County read over 850 particles of "particulate matter" per cubic meter, which was eight times the norm, the Beijing News said.

L. DENSO to Produce Diesel Common Rail Systems in China

On June 1st, DENSO Corporation announced that it established a wholly owned company, DENSO (Changzhou) Fuel Injection System Co., Ltd., to produce common rail systems for diesel vehicles in Changzhou, Jiangsu, China. The investment will total approximately four billion yen.

Construction for the new company is scheduled to begin in October 2007 with completion in August 2008. Production start is scheduled for July 2009. By fiscal 2012, the company's sales are expected to be approximately US\$148 million (approximately 18 billion yen).

"We believe that the demand for common rail systems will grow as China moves towards stricter exhaust emission regulations," said Hiromi Tokuda, senior managing director in charge of DENSO's Powertrain Control Systems and Electronic Systems Business Groups. "DENSO will locally produce and provide common rail systems, particularly for high demand large diesel vehicles, and help create an environmentally conscious automotive society in China."

DENSO currently produces common rail systems in Japan, Hungary, and Thailand. The new company in China will be DENSO's third production base outside Japan for common rail systems.

M. VW Going Greener in China with Diesels

German auto conglomerate Volkswagen AG was the first global auto manufacturer to gain a foothold in China. After more than 20 years of operation in the nation, the auto giant now plans to be the first providing an entire fleet of fuel economy vehicles. "Volkswagen China has planned a fuel and emissions strategy for the future. By 2010, the fuel consumption and emissions of all Volkswagen cars produced in China will be reduced by 20 percent," says Winfried Vahland, president and chief executive officer of Volkswagen Group China.

To reach that goal, all Volkswagen models will by 2010 be equipped with the latest multi-point injection or turbo supercharged injection engines. A new powertrain technology, including turbo charging and advanced transmissions will be used in all local models made at FAW Volkswagen and Shanghai Volkswagen. "As the first step of this strategy, the 1.8 TSI engine, has already rolled off the production line at the Volkswagen FAW engine plant in Dalian, the same time as the technology is being introduced in Europe," says Thomas-Christian Knott, board member and executive vice-president of Volkswagen Group China.

The joint venture between Volkswagen and China First Auto Works announced its inauguration in March to contribute to the new powertrain strategy with engines using the latest turbo fuel stratified injection technology. The two parent companies invested some 840 million Yuan in the plant by the end of 2006, with total planned investment by 2011 set at 1.5 billion Yuan. Production capacity will be 300,000 engines per year.

The auto group displayed its fuel economy car models and technology at the Shanghai Auto Show last month, including its Touran EcoFuel, Polo BlueMotion, TSI, V6 turbo-charged direct injection (TDI) and direct-shift gearbox.

According to Knott, the TDI combines turbo charging and direct fuel injection, achieving both high power and lower fuel consumption. Because of the technology, even a 1.4-liter TDI is able to create a maximum power of 96 kilowatts and 220 in absolute peak torque.

Volkswagen's DSG transmission employs a twin-clutch technology that integrates two sets of gears to control shifting, making for a faster gear change that helps save fuel.

The combined TDI and gearbox technologies can save more than 20 percent in fuel while at the same time making driving more fun, the company says.

"Volkswagen is also a world leader in modern diesel technology. A TDI V6 engine demonstrates how we achieve robust power while using less fuel and producing fewer emissions," says Knott. "For example, our 3-cylinder 1.4 TDI-powered Polo BlueMotion consumes just 3.9 liters of diesel fuel per 100 kilometers and already meets stringent 'Euro Four' standards. Its low carbon dioxide emissions have won it a lot of applause," Knott says.

BlueMotion comes from Blue - the Volkswagen color suggesting clean water and air - and Motion that embodies the future.

The automaker also has new designs that use alternative fuels. "Alternative fuel means a wider supply resource of fuel. The Touran EcoFuel shows Volkswagen's commitment in this direction," says Knott. Fueled with compressed natural gas (CNG), the Touran EcoFuel car can reach up to 180 km per hour while using 5.8 liters of CNG per 100 kilometers. It can cover a range of 310 kilometers on one tank of fuel. The auto stores CNG fuel in four tanks underneath the car body, yet the company says the system is as safe as gasoline or diesel designs.

"At Volkswagen we had the capability to produce hybrid cars years ago. But we want to provide the public with fuel economy cars at a low price, not using high-cost technology like hybrid or hydrogen-powered," says Knott. He also says that using the powertrain strategy, Volkswagen autos will not be very expensive, with the price "merely several thousands Yuan higher than that of the older models".

Volkswagen is betting heavily on diesel-powered cars. The top car seller in China holds diesel cars as the "most practical" solution to the nation's energy and environmental problems. Modern diesel engines won't increase car prices and can save fuel consumption by 40 percent compared with petrol cars with the same engine capacity, the company said. "Only with the approach to provide environmentally friendly technology to everyone and not just a few, can a positive effect on the environment be achieved," said Winfried Vahland, president of Volkswagen China Group.

N. Auto Profits in China Expected To Slow

China's top 16 automotive groups reported a 70 percent increase in first-quarter profits helped by brisk sales, but the pace is expected to slow due to pricing wars in the world's second-biggest vehicle market. Post-tax profits totaled 12.8 billion Yuan in the first three months of 2007, up 69.9 percent from a year ago, according to data provided by China Association of Automobile Manufacturers.

SAIC Motor Co Ltd, the biggest manufacturer by sales, posted profit growth of 71.9 percent, while profit from First Automotive Works Corp, the No 2, increased one-third.

Zhu Yiping, an official from the auto association, said strong vehicle sales boosted by new model launches helped the profit surge.

From January to April this year, sales of domestic passenger vehicles - sedans, sport utility vehicles, multi-purpose vehicles and micro-buses - climbed 20.7 percent to 2.08 million units, according to the auto association. Zhu said automakers' growing cost-cutting efforts also helped to raise profits.

However, analysts predicted full-year profit growth will be dampened by aggressive price incentives brought by mounting competition. Zhang Xin, an analyst with Guotai Jun'an Securities Co Ltd in Beijing, said 2007 profits of the 16 largest automotive groups will grow 35 to 40 percent from last year. "Producers have to cut prices to tempt buyers, which will hurt their margins in the remaining period of this year," Zhang said.

Nanjing Automobile Corp's joint venture with Italian carmaker Fiat Auto recently slashed prices of the Perla, Palio and Siena models by 8,000-11,300 Yuan.

Hua Xue, chief executive officer of Cheshi.com.cn, a Beijing-based website tracking nationwide car prices, predicted last month that average prices of China-made cars will tumble 6 percent in 2007.

53. HK Pollution Getting Worse, Say Greens

Hong Kong's bad-air days have doubled over the past decade, according to green group Friends of the Earth, saying rising energy consumption and wasteful lifestyles were exacerbating the problem.

As Hong Kong marks its tenth year under Chinese rule on July 1, worsening pollution has become a major problem. Residents and expatriates are increasingly dismayed at the numerous smog-ridden days caused by the city's coal-fired power stations, huge numbers of cars, trucks and buses as well as thousands of factories in southern China.

Air pollution was cited as "the most disappointing" among a basket of 12 environment indicators used by Friends of the Earth to gauge the city's environmental progress over the past decade.

"Reduced visibility" days, defined as those with a visibility of less than 8 kilometers (5 miles) at a monitoring station near Hong Kong's airport, increased 207 percent from 1997 to 2006, the group said, citing data from the Hong Kong Observatory. In 1997, hazy days occurred once every nine days, but by 2006 this frequency had risen to one in three days, the group added.

54. Hong Kong Takes Steps to Tackle Global Warming

Every individual can and must play a part to protect the environment for future generations, Hong Kong Special Administrative Region (HKSAR) Chief Executive Donald Tsang has announced. Speaking at the 2007 International Conference on Climate Change, Tsang described global warming as one of the most important challenges facing our planet.

"It is up to each and every one of us to make the right choices, even if it means changing life-long habits when it comes to consuming," he stressed.

He outlined several measures Hong Kong is taking to tackle the problem, including encouraging the two local power companies to switch to cleaner fuels by linking their permitted rates of return to the achievement of emission reductions when their schemes of control are renewed next year, setting a target of 1 percent to 2 percent of our total electricity supply to come from renewable sources by 2012, and using methane gas at landfills as fuel.

The vast majority of Hong Kong citizens are willing participants, he said, and it often requires only a gentle reminder or a nudge in the right direction.

"Our Action Blue Sky Campaign does just that. To give one example, it urges people to keep their air conditioners at 25.5 degrees centigrade during summer months, which is a simple act that can save 1 billion units of electricity and reduce our greenhouse gas emissions by 700,000 tons a year," he said.

"The government has also taken the lead by encouraging people to dress more casually in the hotter summer months so that they might not feel the need to twist the air conditioning knob a few degrees cooler," he added.

Tsang stressed combating climate change will only be successful if we all face up to our responsibilities, adding governments, big business, non-governmental organizations and individual citizens all have a significant role to play.

"Hong Kong prides itself on being a world city. We flourish on international trade, and firmly believe that continued economic growth can only be achieved if we protect the environment that sustains us. Protecting against global warming must be a team effort, spearheaded by the strongest and wealthiest nations, protecting and guiding the most vulnerable regions, and above all ensuring an environment for our future generations to enjoy and in which they can continue to thrive," Tsang said.

55. Taiwan Notes Worsening Air Pollution from China

Taiwan is increasingly suffering from air pollution that is carried across the Taiwan Straits from China, officials at the Taiwan Environmental Protection Administration (TEPA) said on April 24th. Monitoring stations that check for pollutants in seasonal winds from China have detected increasing levels of sulfur dioxide and suspended particulate matter less than 10 micrometers in diameter (PM-10). During the most recent October-April period, 41 percent of air samples found PM-10 levels exceeding Taiwanese standards, up from 10 percent two years earlier. For sulfur dioxide, 44 percent of samples failed to meet standards, up from 33 percent two years earlier. Taiwan's standard for PM-10 is 150 micrograms per cubic meter. For sulfur dioxide, it is eight parts per billion. "We believe that China's rapid industrial development and deteriorating environment have become a headache for not only Taiwan but also other countries in the region, such as Korea and Japan," Hsiao Hui-chuan, director general of TEPA's Department of Environmental Monitoring and Information Management, told a press conference.

56. Vehicles Contribute 72% of Pollution in Delhi

The air quality in the Indian Capital has improved significantly from 1997, according to the Economic Survey of Delhi and the latest study conducted by the Central Pollution Control Board — "Air Quality Trends and Action Plan for Control of Air Pollution from 17 cities."

- From 1997 till now, the concentration of Carbon Monoxide has declined by 46%. The annual average CO level has gradually been reducing since 2001. It was 4,183 mg/m³ in 2001 whereas, in 2003 and 2004, it came down to 2,831 mg/m³ and 2,581 mg/m³ respectively.
- Sulfur Dioxide level has reduced by 50% from 1997 to 2004. Annual mean SO₂ level reduced from 18.03 mg/m³ in the year 2000, to 9.00 g/m³ in 2005. As such, SO₂ level has decreased by 50% in 2005 as compared to 1997. This is linked to conversion of all buses/taxis/autos to CNG mode.
- Concentration of NO₂ has been showing a slightly increasing trend from 2002. Annual average value of NO₂ has decreased significantly (4.82%) in 2003 as compared to previous year but there is an increase in 2004 as compared to 2003. It was 45 mg/m³ in 2003 and 57 mg/m³ in 2004 as against 47.28 mg/m³ in 2002.
- There was improvement in the concentration of suspended particulate matter (SPM) in ambient air in 2005 as compared to 2002 but was constant in 2004 compared to 2003. The annual average SPM level has come down from 455 mg/m³ in 2002 to 390 mg/m³ in 2003 and 331 mg/m³ in 2005 but still remains way above the adequate standard of 60 mg/m³. Annual average of RSPM level has reduced by 6.8% in the year 2004 as compared to 2003.
- While vehicular pollution was responsible for only 23% of air pollution in 1970-71, in 2004-05, it was responsible for more than 72%. In the 1970s, industrial pollution was the biggest cause of concern; now, it contributes to 20%.
- The number of vehicles has increased from 24.32 lakh³ in 1994-95 to 44.89 lakh in 2004-05. The highest increase was in the category of cars/jeeps (140.45%) followed by scooter/motorcycle (74.78%). This has resulted in a corresponding increase in pollutants emitted by vehicles.
- Petrol consumption has increased from 1,33,000 tons in 1980-81 to 6,39,000 tons in 2004-05; diesel (HSDO) consumption has increased from 3,77,000 tons to 12,14,000 tons.
- The pollution generated from industrial activity in Delhi contributes about 20% to the total air pollution, according to government estimates. More than 1,300 illegal and polluting industrial units have been shut.
- All industries in Delhi using coal fired boilers have been asked to change over to oil or gas fired boilers to reduce air pollution. This will also reduce fly ash generated by an approximate 4,000-5,000 coal fired boilers
- The main pollutants from coal-based thermal power plant are stack emissions, fly ash generation and fugitive emission in coal handling.
- There are five power plants in Delhi: two gas-based and three coal-based. The Delhi Pollution Control Committee has laid out stringent norms for particulate matter emission as 50 mg/ Nm³ for which all the three thermal power plants are in the process of upgrading their pollution control system.
- As per a CPCB study, a lot depends on weather conditions--winters are generally more polluted than summers

³ 100,000

- Met factors like wind direction and wind speed, which change with seasons, play an important role in air pollution, particularly in the transport of pollutants
- The strong winds during summers from April to June create turbulent conditions and local disturbances in the environment which cause frequent dust storms and hazy conditions. These dust storms build up high particulate matter levels in the ambient air, mostly constituting soil-borne particles
- The monsoons result in large amount of precipitation, high wind velocities and changes in general wind direction. The large amount of precipitation reduces atmospheric pollution as it settles down the pollutants
- In winters, high pressure causes increased atmospheric stability, which in turn allows for less general circulation and thus more stagnant air resulting in accumulation of pollution in an area

57. Car Makers in India See More Mileage in Diesel

It's been an engine of growth in the car market. Higher fuel bills have kicked off demand for diesel variants and the success of mid-size sedans and top-end hatchback models like the Hyundai Verna, Ford Fiesta and Suzuki Swift has triggered off a flurry of launches this year.

The Detroit big two General Motors and Ford have both announced diesel introductions in the coming months. While Ford will launch its Fusion diesel version in the third quarter of this year, General Motors will put a diesel engine in its luxury sedan Optra this June.

"We are in the final stages of bringing the newest member of the Optra family to the market. It will be manufactured at our Halol plant and should reach Chevrolet retailers next month," said GM India vice-president Mr. P Balendran.

Armed with a turbocharged common rail direct injection (TCDi) engine, the new Optra diesel will boast second-generation common rail technology. As for Ford, it will strap its Fusion model with the Duratorq diesel engine that it imports from Europe.

There's a reason for the diesel push. Already, almost 70-80% of all Fiesta and Verna sales are in diesel. And the recently launched Mahindra Renault's Logan sedan has also positioned itself aggressively on the CRDi platform. According to Mahindra Renault managing director Rajesh Jejurikar, the Logan's diesel demand is almost 70% of the total bookings received by the auto maker.

And to take on the Logan's position as the most affordable CRDi model, arch rival Tata Motors recently launched a CRDi version of its Indigo sedan at a price ranging from Rs 5.25 lakh-Rs 5.85 lakh. The new Indigo is the most aggressively priced CRDi sedan in the market right now.

According to estimates by the Society of Indian Automobile Manufacturers, diesel is currently around 20-25% of the total car market. However, as more CRDi models roll out, this number should increase substantially. For carmakers, diesel offers the perfect answer to the customer's search for lower cost of ownership.

"Our Fusion consumers were constantly asking for a diesel variant, largely because it is a city car, the consumer wants better mileage, diesel is readily available across the country and is low on emissions," says Ford India president & managing director Arvind Mathew.

In the luxury segment, both Mercedes Benz and Skoda are doing well with their diesel engine. Skoda is likely to bring a diesel variant even in its much awaited small car Fabia. And Maruti's new launches in the future would also probably include the diesel Swift sedan. As for Hyundai, it has indicated it will introduce a diesel Getz this year.

58. Petrol, Diesel Prices Hiked In Delhi

The Delhi government has increased petrol prices by 67 paise and diesel by 22 paise a liter to "stop recurring revenue loss". Petrol will now cost Rs.43.52 a liter and diesel Rs.30.47 a liter in the capital.

Said Delhi Finance Minister A.K. Walia: "Due to subsidy, we were not getting our value added tax and have been incurring a loss of Rs.11 crores (Rs.110 million) per month since February." He refused to accept that the hike would burden consumers. "It's just a marginal hike and won't burden people."

Recently, the Delhi government announced a hike in the fares of buses, auto-rickshaws and taxis.

59. GM Sees 50% Sales in India from Diesel Models

Diesel engines are expected to propel the growth of General Motors India. The company reportedly sees 50 per cent of its sales coming from diesel models in the next two to three years. The company may also eventually manufacture turbo-charged common rail direct injection diesel engines in the country. The automaker now imports diesel engines for the Tavera and Optra Magnum. Diesel models currently contribute 30 per cent to GM India's overall sales.

"We are exploring all options for our new plant in Talegaon, Pune. The plant is expected to start production in the third quarter of next year, but we cannot comment on the specifics," said Sumit Sawhney, general manager — sales, GM India.

The \$300-million Talegaon plant will be the company's second in India. GM India will also scale up the capacity of its Halol plant to 84,000 units a year. The company aims to garner a 10 per cent share of the Indian auto market by 2010 and roll out two lakh (100,000) cars from its Halol and Talegaon plants.

GM India plans to sell 72,000 cars this year, including 24,000-25,000 Taveras and 8,000 of the recently launched Optra Magnum. The company is also testing the waters for alternative fuels such as compressed natural gas (CNG). CNG Optras are already available and the firm is working on a CNG version of the Aveo.

GM has launched three models in the past five months — the Aveo UVA, Chevy Spark and Optra Magnum.

The Aveo UVA and Chevy Spark are expected to generate over 70 per cent of the company's sales in the coming years. The company is also in talks to work out a model for its branded pre-owned car business. In the meantime, Suzuki Motor Corporation has entered into a joint venture with Maruti Udyog Ltd to set up the first plant for making diesel engines and transmissions at Manesar, Haryana.

Suzuki Motor has a 70 per cent stake in the joint venture, which is called Suzuki Powertrain India Ltd. The plant will entail an investment of Rs 2,500 crore (10 million) in phases until 2010. The facility has an initial capacity to manufacture 100,000 diesel engines a year.

60. Indonesia Launches New Air Quality Initiative

On April 17th, Indonesia's Environment Ministry unveiled a program to improve urban air quality. Environment Minister Rachmat Witoelar told reporters the program would monitor the air quality of 11 urban areas looking in particular at traffic conditions, carbon monoxide, and suspended particulate matter. On April 26th, a ministry spokeswoman said that the evaluation, which is expected to conclude late this year, would be used to assess the performance of different municipal administrations and policies. The ministry will also encourage more local governments to adopt non-polluting public transit systems like the natural gas buses used in Jakarta. Witoelar later warned that the government could take more drastic steps if the new program did not produce results. The April 19 edition of the Jakarta Post quoted the minister as saying he would push for a blanket ban on the sale of new cars in Indonesia if the program had no success in improving air quality. Witoelar acknowledged such a ban could prove "a bitter pill" for Indonesians but said people were buying up cars and motorcycles at a "dangerous" rate that could soon see the number of private vehicles exceed the country's population.

61. February Flood Left Polluted Soil in East, North Jakarta: Study

Although the use of lead in fuel was stopped last year, lead contamination in city soil hit dangerous levels in the aftermath of the February floods, a survey has revealed. The survey, carried out by the State Ministry for the Environment, showed the lead level in soil at industrial areas in Pulo Gadung, East Jakarta reached 359.5 milligrams per kilogram after the floods, far higher than tolerable standard of 100 mg/kg.

"That's a very dangerous level because it will pollute the sources of ground water in surrounding areas," said I Ketut Muliarta, the deputy assistant for the recovery of environmental quality at the environment ministry.

He said deposits of lead in soil were toxic to both humans and animals. For humans, lead poisoning can cause birth defects and damage brain cells, marrow, kidneys and other vital organs, particularly in children.

"We think the lead pollution is from metal processing plants in the area or paint from buildings that had been absorbed into the soil," he said. Lead was widely used in paint in the past.

He said the finding had been handed over to the management of the Pulo Gadung industrial area for them to follow up.

Dozens of industrial areas in Greater Jakarta were severely hit by the February floods.

The ministry survey also took samples of floodwater at a hospital in Kepala Gading and at Pertamina's fuel depot in Plumpang, both in North Jakarta. The survey found metal pollutants surrounding the hospital and the Pertamina depot were relatively low.

"But the level of micro organisms in the flood water around the hospital was relatively high, reaching 98,000 to 157,000 per milliliter," he said.

The oil content found to have leaked into the water at the Pertamina depot was relatively low at 828 mg/kg. "We wanted to make sure the depot hadn't leaked and polluted nearby areas during the floods," he said.

The February flood was the largest flood in five years, inundating around 70% of the city and causing severe economic losses. Many industries were forced to close their operations by the high water level.

Ketut said some industries, which had yet to set up waste water processing plants, might have used the flood as an opportunity to illegally dump their waste. The Jakarta administration has admitted that many businesses operating in the capital are not equipped with waste water processing plants.

Ketut said the results of the survey could not be used to draw conclusions about the state of all the city's soil. "But it is warning call (for the whole city) because the soil is seriously polluted. So companies also have to be serious about treating their hazardous waste by improving their waste water processing plants," he said.

The ministry currently handles 15 areas polluted by hazardous waste across the archipelago. Most sites had been contaminated by the activities of mining, oil and gas companies.

Ketut said his office recovered 12 hectares of contaminated land last year.

Meanwhile, Budi Haryanto from health department at the University of Indonesia was surprised with the finding. "The government must trace the source of the lead soon to avoid it polluting ground water in the area. It's dangerous for the human health," he told the Post.

Half of the Jakarta's approximately 10 million people currently rely on ground water for drinking. Groundwater has long had problems with contamination with E-coli bacteria.

Environmentalists in Jakarta had urged the government to stop using lead in gasoline produced by state-oil and gas company Pertamina since 2001.

Budi, who has conducted surveys on lead, said children were the most susceptible to poisoning. His survey found the lead content in the blood samples of Jakarta elementary schools students dropped from 8.6 microns per milliliter to 4.2 microns when the phase out of lead was introduced. The tolerable lead in human blood is 10 microns per milliliter.

62.HCMC Reeling From Air Pollution, Groping For Solutions



A study conducted in District 1 by the Ho Chi Minh City (HCMC) Department of Natural Resources and Environment found the city's dust content was three times higher than permissible levels. The lead content measured in the city was 2.4 times higher than last year. Notably, benzene has risen to nearly twice the safety threshold.

The exacerbating air pollution in the city has badly affected residential health, particularly in children.

The HCMC Pediatrics Hospitals have recorded soaring numbers of children hospitalized due to respiratory ailments: sore throat, asthma, bronchitis, pneumonia and others. Headaches and dizziness have also been common and attributed to the pollution.

Children from districts Tan Binh, Binh Chanh, Hoc Mon, 8, and 11 made up the majority of patients, doctors said.

Besides hurting the respiratory system, doctors warned the fallout of the environmental contamination could also hurt fetus development, the nervous system, the brain, and inhibit children's physical activities. The concern was aggravated as environmental scientists said toxic chemicals emitted into the air like benzene, xylene, or phenol could cause problems as grave as digestive disorders and cancer.

At a conference held in HCMC two months ago, international scientists said that dust particles in the air caused chronic obstructive pulmonary disease (COPD).

With around 2 million motorbikes and 500,000 cars registered in HCMC, not including thousands of others from elsewhere, tackling air pollution will not be easy. In the short term, the Ministry of Natural Resources and Environment aims to usher in a scheme to test all motorbikes for emission levels once every five years.

The Vietnam Registration Agency said it would advise other relevant agencies to initiate measures to enhance the quality of fuel sold on the market.

Additionally, motorcycle owners would be encouraged to use clean fuel and asked to pay environmental levies.

Last year Ho Chi Minh City suffered financial losses worth \$50 million because of environmental damage from vehicle emissions.

63. Report Questions Australia's Ability to Meet Kyoto Goal Despite Commitment

Research commissioned by a climate change advocacy group indicates that Australia's greenhouse gas emissions are growing faster than expected, making it likely the nation will overshoot its Kyoto target of limiting the emissions to 108 percent of 1990 levels over the period 2008-2012.

Federal Environment Minister Malcolm Turnbull disputed the finding, however, saying Australia was "absolutely ... on track" to meet its target.

According to data released April 27 by the Climate Institute, growth in energy and transport emissions was much faster during 2006 than anticipated by the government. "Based on current government projections, and if no significant government policies are introduced, total emissions in 2010 will be more than 110 percent of 1990 emissions," the Climate Institute said. "It is looking increasingly unlikely that Australia will meet its [Kyoto] goal."

Australia has not ratified the Kyoto Protocol but remains committed to meeting the target it accepted at Kyoto. Australia and the United States are the only two developed countries that have not ratified the protocol.

The Climate Institute commissioned the research from energy consultant Hugh Saddler of Energy Strategies Pty. Ltd., who also works as a consultant to the government on its annual National Greenhouse Gas Inventory. His calculations for the Climate Institute used data on petroleum and natural gas use to derive estimates of 2006 energy and transport emissions. The national inventory figures are derived from different data sets and are not as current, according to Saddler.

Turnbull rejected the research done by Saddler for the Climate Institute as "wrong." "The fact is that they just haven't taken into account the whole of the carbon balance," he said. "We are well on track and we have a whole range of measures both announced and pending which will make a significant difference to our emissions levels."

Late last year, the government began edging away from previous statements that on current policy settings it was on track to meet its Kyoto target. Last November, then-Federal Environment Minister Ian Campbell said it had "become obvious to me in recent weeks" that Australia was facing "some stress" in its efforts to meet the target. The government has since announced some new initiatives, including a potential ban on energy inefficient incandescent light bulbs.

A report issued April 23 by three national environment groups has urged the introduction of a nationally legislated target for 25 percent of electricity to come from renewable energy by 2020 as well as a national target of zero electricity growth by 2010.

On April 24th, the Australian Greens, who have four representatives in the Australian parliament, released a report urging a national target of reducing greenhouse gas emissions to 80 percent below 1990 levels by 2050. The Greens want an interim 2020 target of reducing emissions to 30 percent below 1990 levels.

64. Mayor Says Sydney Needs a Future Plan to Be Sustainable

If Sydney's obsession with the car continues at its current rate, by 2030 air pollution could kill one resident every four hours -- eight times the number of people killed in road accidents, according to its mayor. Sydney Mayor Clover Moore said Australia's biggest city was devouring its environment as urban sprawl and pollution spread and needed a long-term plan for a sustainable future.

"The predictions paint a bleak picture for Sydney in 2030 if nothing is done. The time to prepare and prevent this happening is now," Moore said in launching "Sustainable Sydney 2030".

The last long-term plan for Sydney, a city of four million, was developed in 1971, but environmental pressures demand a new urban plan, said Moore. "Environmental imperatives alone mean that we need to rethink the way we build, operate and live in our cities. But they also present unparalleled opportunities to re-imagine our cities..." Moore said in a speech to business leaders.

"The great cities of the 21st century will protect their unique character and heritage, while setting the highest standards for new development," said Moore. "They will accommodate greater numbers of people in better environments and...they will be economically competitive while being environmentally sustainable," she said.

Sydney's environmental footprint, the amount of land needed to support the city, is currently 49 percent of the state of New South Wales (NSW), Australia's most populous state and the country's biggest state economy. If Sydney continues its current growth it will be home to an extra 1.1 million by 2030 and its footprint will reach 95 percent of NSW by 2031. Such a footprint was "unsustainable for Sydney, for NSW and for the nation", said Moore.

Sydney is already grappling with population pressures and a lack of housing, traffic gridlock and rising waste and pollution.

Sydney's greenhouse emissions are predicted to rise by 40 percent by 2030 without a reduction plan, said Moore.

Unreliable public transport means 70 percent of all city trips are made in cars and just four percent by rail. Car use is expected to double by 2030 from 2002 levels and the cost of traffic congestion, around A\$18 billion (US\$15 billion) in 2005, and could rise to A\$28 billion by 2030, said Moore. "Our transport systems are struggling to cope with one million people who travel around the city of Sydney each day," she said.

And despite a postcard image, Sydney's air pollution contributes to between 600 and 1,400 deaths a year. With a doubling of car travel and container truck traffic predicted by 2030 the number of deaths caused by air pollution could rise to around 2,380 a year, or four per hour, said Moore.

She said Sydney needed to curb car travel, cut water and electricity usage and create more sustainable housing. Her vision for Sydney involves greater use of public transport, easier access for pedestrians and cyclists, buildings that collect rain and cool themselves naturally, and storm water used for watering parks and gardens.

65. Asia-Europe Environment Ministers Agree on Targets, Technology Transfer

On April 25th, delegates from 38 Asian and European countries concluded a meeting with a pledge to work together to develop an international framework for reducing greenhouse gas emissions following the expiration of existing Kyoto Protocol targets in 2012. A declaration issued at the end of the Third ASEM Environment Ministers' Meeting emphasized the need to reach a post-Kyoto agreement as "early as possible" to avoid a gap between existing commitments and whatever is to follow 2012.

The declaration called for an "urgent shift in the nature of energy systems" to ensure "continued sustainable economic development" as well as "security of supply and improved demand management."

"ASEM countries are determined to enhance cooperation on research and development, deployment, and transfer of low carbon emissions technologies," it said.

While the meeting did not discuss specific emissions targets, delegates did agree in principle that targets were desirable for the promotion of renewable energy and energy efficiency.

The declaration noted that biofuel production can have an adverse environmental impact and urged the establishment of certification systems to promote sustainable biofuel production.

"Some people may say it is only words but words lead to action. Every small step helps," Danish Environment Minister Connie Hedegaard told a press conference. "The important thing is that this is a text that all the countries have signed up. It is very satisfying that all nations are behind the final declaration. There is certainly a shared will to do something about the problems we face."

"It is important that the role of targets was mentioned in the final declaration and we will build on this wording in the future," she continued. "The agreement on the decoupling of sustainable economic growth from energy consumption is also more than we had hoped for."

Hedegaard added that technology held the promise of boosting developing countries' economic performance while reducing greenhouse gas emissions. "The technology already exists but it needs to be disseminated. The problem is getting it out there. That's what 'best practice' is about."

The declaration also recognized the importance of the U.N. Climate Change Conference to be held this December in Bali, Indonesia, where the post-2012 issue will be at the top of the agenda. ASEM leaders will next gather at a summit in Beijing in October 2008.

66. Air Pollution Causes More Than 22,000 Deaths Annually In Pakistan

Air pollution causes the death of more than 22,000 adults and 700 children in Pakistan every year in addition to a loss of Rs 365 billion to the country's economy annually, says a recent report. The World Conservation Union (IUCN), in the report, quoted the World Bank's assessments on environmental degradation and pointed out that the most significant impacts of environmental damage were illness and premature mortality caused by air pollution, diarrheal diseases and typhoid due to contaminated water supply, and lack of sanitation and hygiene.

Globally, the report said although Pakistan's total contribution to global greenhouse emissions is less than one percent, the impact of climate change on the country's population and economy is much more.

The report said that the adverse impacts of climate change are already apparent in the form of increased glacial melt, prolonged droughts, unusual temperature fluctuations and precipitation variability.

The effects of these phenomena on food production, water supply, biodiversity, natural ecosystem and human health not only threaten the integrity of the country's primarily natural resource-based economy but also jeopardize the livelihoods of those who depend on the natural environment and the valuable goods and services that they provide.

The report said that the impact assessment studies of key sectors indicated water resources and agriculture as high priority sectors of extensive climate change impacts with implications on livelihoods of the population and the national economy.

67. South Korea Regulates New-Car Interior Air Quality

On June 5th, South Korea's Ministry of Construction and Transportation issued guidelines for limiting the presence of chemicals in new cars blamed for "sick car syndrome." The guidelines,

which will apply to domestic cars produced on and after July 1, 2009, limit formaldehyde to 250 micrograms per cubic meter of indoor air; benzene to 30 [micro]g, toluene to 1,000 [micro]g, xylene to 870 [micro]g, ethylbenzene to 1,600 [micro]g, and styrene to 300 [micro]g. These chemicals, associated with the smell of a new car, are believed to cause headaches and eye and skin irritations in some drivers. "These recommended guidelines will help improve car interior air quality and drivers' safety," said Kim Sang-do, an automotive policy director at the ministry. The ministry will test new-car air samples every two years and publish compliance findings. It can also ask manufacturers falling short of the standards to take corrective action.

SOUTH AMERICA

68. Peru's Ombudsman Calls For New Environmental Authority

On April 18th, the Peruvian government's ombudsman's office released a report urging the state to establish a new environmental authority to improve enforcement. The report, *Socio-Environmental Conflicts Caused by Extractive Industries in Peru*, calls for the state to "reform and strengthen environmental institutions through the creation of an independent environmental authority with political weight and responsibility."

While Congress and President Alan Garcia's government have not responded to the report, several state agencies and private groups have offered their opinions, attacking the document as poorly planned and researched.

The strongest criticism came from Perupetro, the state agency in charge of promoting and signing hydrocarbon contracts. The ombudsman's report claims that several of the 19 hydrocarbon lots Perupetro is promoting worldwide overlap with natural protected areas and indigenous reserves. The blocks in questions cover approximately 15 million hectares, more than 75 percent of which are located in the Amazon.

"No block is located in a natural protected area," Daniel Saba, president of Perupetro, told journalists. "There is no evidence of overlapping in any area." Protests by environmentalist and indigenous rights group earlier this year forced the Ministry of Energy and Mines to announce that Perupetro would redesign three of the blocks for allegedly overlapping protected areas. Saba's office complied, but he said the decision was political, not technical.

Perupetro hopes to announce the completion of the auction process by early July. The agency has already awarded contracts for two hydrocarbon blocks this year, both offshore, in addition to 31 in the previous two years.

69. Brazil to Restructure Environment Ministry

On April 26th, Brazil's government issued three decrees and one provisional measure to restructure the Environment Ministry and IBAMA, the ministry's enforcement and licensing arm. The move prompted the April 30th resignation of IBAMA's licensing director, Luis Felipe Kunz, and caused IBAMA's Employees Association, ISABAMA (Associação de Servidores do IBAMA), to issue an alert that a strike could occur.

Environment Minister Marina Silva said at an April 25th press conference that the restructuring was intended to improve efficiency.

Under the plan, IBAMA will be split into two separate units. One will retain the name IBAMA, and will continue to oversee enforcement and licensing. The second, Inbio, will deal with biodiversity conservation.

The plan will also create four new Environment Ministry departments to handle the following areas: climate change and environmental quality; water resources and urban areas; land use and sustainable rural development; and institutional organization.

70. Colombia Court Ruling Backs Bus Removal Program

On April 27th, Colombia's Council of State ruled that the Bogotá mayor's office was acting within its authority in 2003 when it issued a decree declaring that a fraction of passenger fares was to go to a fund to purchase old buses and withdraw them from service. Decree No. 115 of April 16, 2003, was intended to reorganize the city's public transit. It included measures to promote the gradual replacement of older, private buses with a new express bus system administered by the city in which buses have dedicated lanes and train-style stations. It called for withdrawing permits for traditional bus routes and created a fund to progressively purchase older buses and withdraw them from circulation. The decree gave the city's Transportation Secretariat the authority to determine a percentage of passenger fares to finance the fund, which the secretariat set at 1.7 percent. Private bus owners who opposed the measures initiated a lawsuit, which won in lower courts but has now been overturned by the Council of State ruling. According to government studies, Bogotá has a surplus of 8,000 buses. Between 2003 and 2005, the fund removed only three buses from the road, according to the ruling.

71. Argentina President Threatens Oil Companies about Diesel Shortage

Argentine President Nestor Kirchner has again threatened oil companies with a 1974 "supply law" that allows the government to fine companies for allegedly failing to supply the market. Kirchner's warning, delivered at a provincial public works ceremony, comes amid complaints by farm groups that diesel shortages have slowed the planting of this year's wheat crop. Previously, farm groups had complained that diesel shortages were slowing this year's record soy and wheat harvests, which are wrapping up.

"There can't be a shortage of diesel here because the big companies like Repsol have to deliver it," Kirchner said. "I told Minister (Julio) De Vido to put the 'Supply Law' into effect and the trucks are on the way."

The government dusted off the "supply law" late last year amid reports of fuel shortages during the soy planting period. The measure allows the state to fine oil companies and imprison company executives for failing to meet domestic demand.

Repsol accounts for around 56% of the nation's diesel market, with the remainder supplied more or less equally by the local units of Petrobras, Shell and Exxon Mobil Corp.

The government fined Shell 23 million pesos (\$7.5 million) late last year for allegedly failing to meet diesel needs.

Exxon spokesman Tomas Hess told Dow Jones Newswires that "we'll continue supplying based on what the law establishes." The supply law calls for an increase of supply tied to economic

growth, he said. "If the GDP this year rises by 8%, you have to supply at least 6.4% more than last year." Exxon increased diesel supplies during the first five months of 2007 by 10% on the year, Hess said. "So we are complying perfectly with the law."

Last week, a Repsol spokesman told Dow Jones Newswires that the company expects to import diesel fuel again this year to meet rising demand. Repsol imported 214,000 cubic meters of diesel in 2006, although this year's amount hadn't yet been determined, the spokesman said. A Shell representative said last week that the company was complying with contracts and had no plans to import diesel.

During the past few years, farmers have frequently reported shortages of diesel, and price gouging by intermediary suppliers, during key planting and harvest seasons.

To encourage diesel imports, the government began authorizing tax breaks in 2005. The government initially authorized tax breaks on imports of up to 200,000 cubic meters, but increased the annual quota to 600,000 cubic meters in September of last year.

Despite the tax breaks, some industry officials still complain that importing diesel forces them to sell at a loss due to low government-controlled pump prices.

72. Chile to Tighten Vehicle Limits in Capital Region

Chile will tighten restrictions on vehicle use in its capital Santiago next year in a bid to reduce air pollution and traffic. Under a plan published on April 24th in the Diario Oficial, the government will set strict limits on the number of vehicles that can use city roads during "environmental pre-emergencies," when the air pollution index reaches critical levels. About 1 million vehicles are in use in Santiago, of which only around 80 percent are fitted with catalytic converters. The city is situated in a basin surrounded by mountains, which trap air pollution. Although efforts to push industry to switch from dirtier fuels to natural gas has improved the situation over the last decade, a tight gas market has more recently led some plants to switch to other fuels, increasing emissions and triggering more "pre-emergencies." According to Environment Minister Ana Lya Uriarte, fuel switching alone is not illegal but firms must still comply with environmental standards. The gas situation "does not give them carte blanche to pollute," she said.

AFRICA

73. Levy On SUVs May Affect Vehicle Sales in South Africa Says Industry

Targeting SUVs is not the solution to cutting greenhouse emissions and could affect sales and jobs, motor manufacturers said in response to comments by a department of minerals and energy official that SUVs should be levied. Speaking about the department's energy efficiency strategy, director of energy efficiency Dr Elsa du Toit made statements regarding a possible tax to be levied against owners of fuel-thirsty SUVs and other motor cars.

Du Toit said she planned to ask for an energy efficiency levy to be put on the selling price and annual licensing fee for cars. She said an additional fee, ranging between 2 and 33% of the vehicle cost, should be levied to reduce sales of the sports utility vehicles.

A R400 000 SUV would cost an additional R132 000 in levies, if charged at 33% of the total vehicle cost.

General Motors SA's vice president for sales and marketing Malcolm Gauld said any tax which would add to the selling price of a vehicle in SA would almost certainly affect overall segment sales with the consequent impacts on local employment. "The auto industry has done an amazing job of reducing the emissions of all vehicles. In fact, during the last 20 years, GM's progress in reducing gasoline engine emissions has resulted in achieving a 98 per cent reduction of overall hydrocarbons, 96% reduction in carbon monoxide, and 90% reduction in nitrogen oxides. And we will continue to improve vehicle emissions until they equal zero," he said.

Volkswagen SA communications manager Bill Stephens said that in order to introduce such a levy, government would need to consider all aspects. "We have no problem in principle with trying to save the environment but everything needs to be analyzed. They need to look at what is harming the environment and not just use this blanket idea of charging SUV owners. "If you take the vehicles in the SUV category, the technology meets or even exceeds international emissions standards, so SUVs could do less damage than some other cars," he said.

Vehicle sales have shown only a slight knock, despite interest rate and fuel hikes in the market. The SUV and 4x4 market is thought to have tripled from 2001 to 2005, with an estimated 500 000 South Africans owning these types of vehicles last year.

Gauld said the Hummer H3, which had just been released on the SA market, and which is manufactured locally, "delivers fuel economy ratings comparable to or better than most midsize SUVs. Future generations of Hummer vehicles will employ six-speed transmissions, more advanced and efficient gasoline engines, alternative fuel, and clean diesel technology".

Du Toit however said the levy was "still very far away" and would need legislation, departmental approval and Treasury agreement. The energy efficiency strategy aims to reduce SA's energy demand by 12% by 2015 – a reduction against projected usage when the population is estimated to reach 53,3 million.

MIDDLE EAST

74. Vehicle Emissions A Problem in Dubai

Vehicle emissions account for more than 75 per cent of the city's air pollution," said an official at the Dubai Municipality. "We have launched an on-the-road vehicle emission measurement survey using remote sensing devices," said Abdullah Raffia, Assistant Director General of Dubai Municipality for Environment and Public Health Affairs.

He said the main objective of the survey is to collect data to formulate strategies to control vehicle emissions in the city.

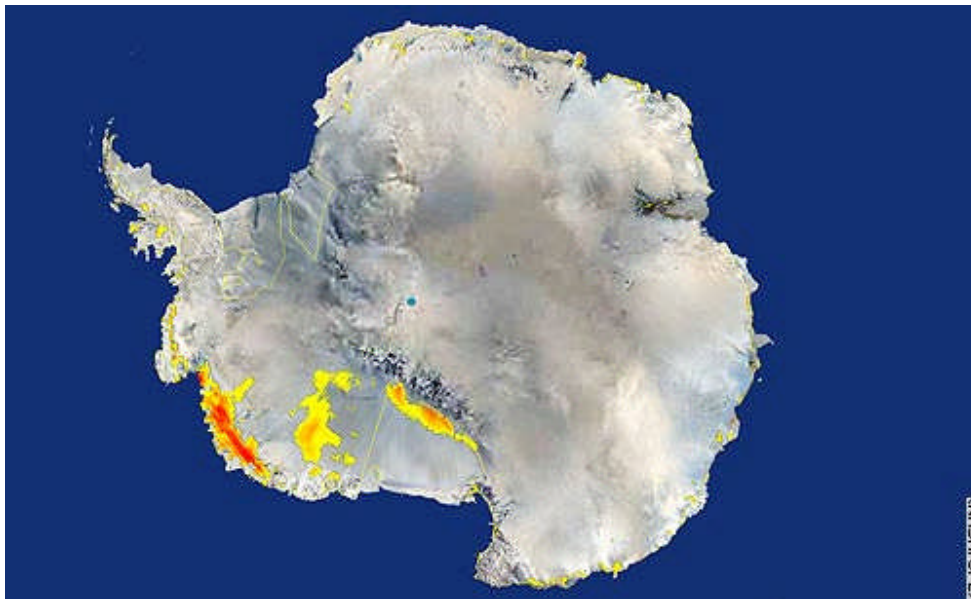
The survey is being carried out in cooperation with the Dubai Roads and Transport Authority (RTA) and the Dubai Police.

According to law, vehicles with excessive emission will be fined Dh300 as per reports presented by inspectors of Environment Protection and Safety Section of the municipality. During the period from 1999 to 2006, some 1,115 vehicles have been reported.

GENERAL

75. Big Area of Antarctica Melted In 2005

Vast areas of snow in Antarctica melted in 2005 when temperatures warmed up for a week in



the summer in a process that may accelerate invisible melting deep beneath the surface, according to NASA scientists. A new analysis of satellite data showed that an area the size of California melted and then re-froze -- the most significant thawing in 30 years, the U.S. space agency said.

Unlike the Arctic, Antarctica has shown little to no warming in the recent past with the exception of the Antarctic Peninsula, where ice sheets have been breaking apart.

Son Nghiem of NASA's Jet Propulsion Laboratory in Pasadena, California, and Konrad Steffen of the University of Colorado in Boulder measured snowfall accumulation and melt in Antarctica from July 1999 through July 2005. They found evidence of melting in several areas, including high elevations and far inland in January of 2005, when temperatures got as high as 41 degrees Fahrenheit (5 degrees Celsius).

"Increases in snowmelt, such as this in 2005, definitely could have an impact on larger scale melting of Antarctica's ice sheets if they were severe or sustained over time," Steffen said in a statement.

"Water from melted snow can penetrate into ice sheets through cracks and narrow, tubular glacial shafts called moulins," Steffen added. "If sufficient melt water is available, it may reach the bottom of the ice sheet. This water can lubricate the underside of the ice sheet at the bedrock, causing the ice mass to move toward the ocean faster, increasing sea level."

76. Research Finds That Earth's Climate Is Approaching "Dangerous" Point

NASA and Columbia University Earth Institute research finds that human-made greenhouse gases have brought the Earth's climate close to critical tipping points, with potentially dangerous consequences for the planet. From a combination of climate models, satellite data, and paleoclimate records the scientists conclude that the West Antarctic ice sheet, Arctic ice cover, and regions providing fresh water sources and species habitat are under threat from continued global warming. The research appears in the current issue of *Atmospheric Chemistry and Physics*.

Tipping points can occur during climate change when the climate reaches a state such that strong amplifying feedbacks are activated by only moderate additional warming. This study finds that global warming of 0.6°C in the past 30 years has been driven mainly by increasing greenhouse gases, and only moderate additional climate forcing is likely to set in motion disintegration of the West Antarctic ice sheet and Arctic sea ice. Amplifying feedbacks include increased absorption of sunlight as melting exposes darker surfaces and speedup of iceberg discharge as the warming ocean melts ice shelves that otherwise inhibit ice flow.

The researchers used data on earlier warm periods in Earth's history to estimate climate impacts as a function of global temperature, climate models to simulate global warming, and satellite data to verify ongoing changes. Lead author James Hansen, NASA Goddard Institute for Space Studies, New York, concludes: "If global emissions of carbon dioxide continue to rise at the rate of the past decade, this research shows that there will be disastrous effects, including increasingly rapid sea level rise, increased frequency of droughts and floods, and increased stress on wildlife and plants due to rapidly shifting climate zones."

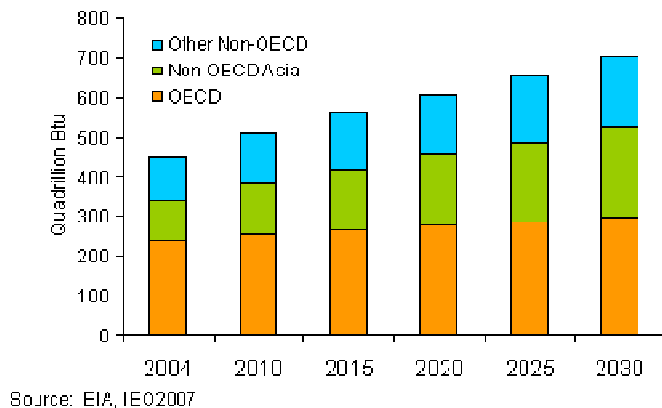
The researchers also investigate what would be needed to avert large climate change, thus helping define practical implications of the United Nations Framework Convention on Climate Change. That treaty, signed in 1992 by the United States and almost all nations of the world, has the goal to stabilize atmospheric greenhouse gases "at a level that prevents dangerous human-made interference with the climate system."

Based on climate model studies and the history of the Earth the authors conclude that additional global warming of about 1°C (1.8°F) or more, above global temperature in 2000, is likely to be dangerous. In turn, the temperature limit has implications for atmospheric carbon dioxide (CO₂), which has already increased from the pre-industrial level of 280 parts per million (ppm) to 383 ppm today and is rising by about 2 ppm per year. According to study co-author Makiko Sato of Columbia's Earth Institute, "the temperature limit implies that CO₂ exceeding 450 ppm is almost surely dangerous, and the ceiling may be even lower."

The study also shows that the reduction of non-carbon dioxide forcings such as methane and black soot can offset some CO₂ increase, but only to a limited extent. Hansen notes that "we probably need a full court press on both CO₂ emission rates and non-CO₂ forcings, to avoid tipping points and save Arctic sea ice and the West Antarctic ice sheet."

A computer model developed by the Goddard Institute was used to simulate climate from 1880 through today. The model included a more comprehensive set of natural and human-made climate forcings than previous studies, including changes in solar radiation, volcanic particles, human-made greenhouse gases, fine particles such as soot, the effect of the particles on clouds and land use. Extensive evaluation of the model's ability to simulate climate change is contained in a companion paper to be published in *Climate Dynamics*.

Figure 1. World Marketed Energy Consumption by Region



The authors use the model for climate simulations of the 21st century using both ‘business-as-usual’ growth of greenhouse gas emissions and an ‘alternative scenario’ in which emissions decrease slowly in the next few decades and then rapidly to achieve stabilization of atmospheric CO₂ amount by the end of the century. Climate changes are so large with ‘business-as-usual’, with additional global warming of 2-3°C (3.6-5.4°F) that Hansen concludes “business-as-usual” would be a guarantee of global

and regional disasters.”

However, the study finds much less severe climate change – one-quarter to one-third that of the “business-as-usual” scenario – when greenhouse gas emissions follow the alternative scenario. “Climate effects may still be substantial in the ‘alternative scenario’, but there is a better chance to adapt to the changes and find other ways to further reduce the climate change,” said Sato.

While the researchers say it is still possible to achieve the “alternative scenario,” they note that significant actions will be required to do so. Emissions must begin to slow soon. “With another decade of ‘business-as-usual’ it becomes impractical to achieve the ‘alternative scenario’ because of the energy infrastructure that would be in place” says Hansen.

77. World Energy Use Projected to Grow 57 Percent Between 2004 and 2030

World energy consumption is projected to grow by 57 percent between 2004 and 2030, according to the reference case projection from the International Energy Outlook 2007 (IEO2007) released by the Energy Information Administration (EIA). The IEO2007 shows the most rapid growth in energy demand for nations outside the Organization for Economic Cooperation and Development (OECD), especially in non-OECD Asia, where strong projected economic growth drives the increase in energy use (see Figure 1).

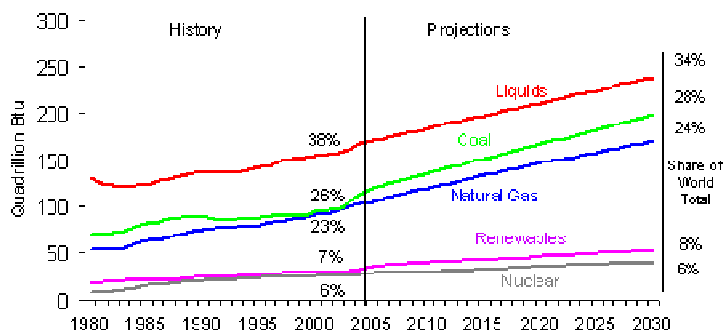
Global energy demand grows despite the relatively high world oil and natural gas prices in the reference case. However, rising oil prices dampen growth in demand for petroleum and other liquids fuels after 2015 and, as a result, reducing their share of overall energy use from 38 percent in 2004 to a projected 34 percent in 2030. In contrast, the energy shares of natural gas, coal, and renewable energy sources are expected to grow over this period (see Figure 2). Liquids consumption is still expected to grow strongly, however, reaching 118 million barrels per day in 2030. The United States, China, and India together account for nearly half of the projected growth in world liquids use.

To meet the increment in world liquids demand in the IEO2007 reference case, supply in 2030 is projected to be 35 million barrels oil equivalent per day higher than the 2004 level of 83 million barrels per day. Conventional resources account for about 27 million barrels per day of this increase, with a projected 21 million barrels per day increase in production by members of the Organization of Petroleum Exporting Countries (OPEC) and 6 million barrels per day increase in non-OPEC countries. Production from unconventional resources (including biofuels, coal-to-liquids, and gas-to-liquids) increases by nearly 8 million barrels per day and accounts for 9 percent of total world liquids supply in 2030.

Other report highlights include:

- Coal consumption, which grows an average annual rate of 2.2 percent, is the fastest-growing energy source worldwide in the IEO2007 reference case projection, which assumes that existing laws and policies remain in effect through 2030 notwithstanding concerns related to the rising level of energy-related greenhouse gas emissions.

Figure 2. World Marketed Energy Use by Fuel Type



Source: EIA, IEO2007

World coal consumption increased sharply from 2003 to 2004, largely because of a 17-percent increase—on a British thermal unit (Btu) basis—in non-OECD Asia (mainly China and India). With oil and natural gas prices expected to continue rising, coal is an attractive fuel for nations with

access to ample coal resources, especially in coal-rich countries like China, India, and the United States. These three countries combined account for 86 percent of the increment in world coal demand by 2030 in the reference case projection.

- Higher fossil fuel prices, energy security concerns, improved reactor designs, and environmental considerations are expected to improve prospects for nuclear power capacity in many parts of the world, and a number of countries are expected to build new nuclear power plants. World nuclear capacity is projected to rise from 368 gigawatts in 2004 to 481 gigawatts in 2030. Declines in nuclear capacity are projected only in OECD Europe, where several countries (including Germany and Belgium) have either plans or mandates to phase out nuclear power, and where some old reactors are expected to be retired and not replaced.

- In the IEO2007 reference case, which does not include specific policies to limit greenhouse gas emissions, energy-related carbon dioxide emissions are projected to rise from 26.9 billion metric tons in 2004 to 33.9 billion metric tons in 2015 and 42.9 billion metric tons in 2030. From 2003 to 2004, carbon dioxide emissions from the non-OECD countries grew by almost 10 percent, while emissions in the OECD countries grew by less than 2 percent. The result of the large increase in non-OECD emissions was that 2004 marked the first time in history that emissions from the non-OECD exceeded those from the OECD countries (Figure 3). Further, because of the expectation that non-OECD countries will rely on fossil fuels to supply much of their future energy demand growth, carbon dioxide emissions from the non-OECD countries in 2030 are projected to exceed those from the OECD by 57 percent.

78. Rapid Global Effort Needed to Slow Warming According to IPCC Assessment

Increasing global temperatures, rising sea levels, and other projected changes in the Earth's climate can be mitigated by a global effort to rapidly reduce greenhouse gas emissions by 2050, a United Nations science panel said in a report released May 4. The report, the latest in a series of assessments released by the Intergovernmental Panel on Climate Change (IPCC), said global greenhouse gas emissions could be significantly reduced by faster deployment of more efficient energy technologies and increased reliance on renewable energy sources such as wind and solar.

The report, *Mitigation of Climate Change*, was released by the IPCC in Bangkok, Thailand.

Globally, a significant cut in greenhouse gas emissions--more than a 50 percent reduction from 2000 levels--"can be achieved by deployment of a portfolio of technologies that are currently available today and those that are expected to be commercialized in coming decades," the report said.

Barring dramatic global action, emissions of carbon dioxide and other greenhouse gas emissions will increase between 25 percent and 90 percent by 2030 from 2000 levels, according to the report. To stave off the more dramatic effects of climate change, worldwide emissions would need to be capped no later than 2015 and then quickly reduced over the succeeding decades, the IPCC said.

The latest IPCC report is the third and final installment of the panel's Fourth Assessment Report, though a summary integrating all three is due to be issued Nov. 16. The Third Assessment Report was issued in 2001.

Successful global efforts to cut emissions in half by 2050 would not completely stop the rise in temperatures or other climate effects, according to the IPCC report. But a 50 percent cut would ensure that global temperatures, which have already risen 1.3 degrees Fahrenheit over the past century, are not allowed to rise beyond another 2.3 F by 2050, the report said.

79. U.N. Raises Doubts on Biofuels

Biofuels like ethanol can help reduce global warming and create jobs for the rural poor, but the benefits may be offset by serious environmental problems and increased food prices for the hungry, the U.N. said Tuesday in its first major report on bioenergy. In an agency-wide assessment, the U.N. raised alarms about the potential negative impact of biofuels, just days after a climate conference in Bangkok said the world had both the money and technology to prevent global warming blamed in part on greenhouse gas emissions.

Biofuels, which are made from corn, palm oil, sugar cane and other agricultural products, have been seen by many as a cleaner and cheaper way to meet the world's soaring energy needs than with greenhouse-gas emitting fossil fuels.

European leaders have decided at least 10 percent of fuels will come from biofuels like ethanol by 2020, and Congress is working on a proposal that would increase production of biofuels sevenfold by 2022. With oil prices at record highs, biofuels have become an attractive energy

source for poor countries, some of which spend six times as much money importing oil than on health care.

U.N.-Energy chairman Mats Karlsson said it only seemed natural to look to biofuels for energy since a quarter of the world's population has no access to power. "What would be more interesting than to reflect on a source of energy that takes simply sunshine and water, and transforms it into power through photosynthesis?" he told a news conference at U.N. headquarters in New York. "Well, when you reflect on it you find that there are many challenges."

The report said bioenergy represents an "extraordinary opportunity" to reduce greenhouse gas emissions. But it warned that "rapid growth in liquid biofuel production will make substantial demands on the world's land and water resources at a time when demand for both food and forest products is also rising rapidly."

Changes in the carbon content of soils and carbon stocks in forests and peat lands might offset some or all of the benefits of the greenhouse gas reductions, it said.

"Use of large-scale monocropping could lead to significant biodiversity loss, soil erosion and nutrient leaching," it said, adding that investments in bioenergy must be managed carefully, at national, regional and local levels to avoid new environmental and social problems "some of which could have irreversible consequences."

It noted that soaring palm oil demand has already led to the clearing of tropical forests in Southeast Asia.

In addition, the diversion of food crops for fuel will increase food prices, putting a strain on the poor, as evidenced by the recent steep rise in maize and sugar prices, the report said.

"Liquid biofuel production could threaten the availability of adequate food supplies by diverting land and other productive resources away from food crops," it said, adding that many biofuel crops require the best land, lots of water and environment-damaging chemical fertilizers.

While bioenergy crops can create jobs in impoverished rural areas where the bulk of the world's poor and hungry live, creating biofuels favors large-scale production, meaning small-scale farmers could be pushed off their land by industrial agriculture.

It suggested that farm co-ops, as well as government subsidies, could help small-scale farmers compete.

80. Air Pollution Linked To Hypertension, Strokes

Air pollutants such as nitrogen oxides cause high blood pressure, according to a recent health report. The study marked the first time that air pollutants were linked with blood pressure, though they have been frequently cited as a factor in chronic fatigue and higher death rates overall.

Seven medical experts including Prof. Hong Yun-chul of Seoul National University's medical school conducted a research study on 10,459 people who received medical treatment between 2001 and 2003. Their research, which was published on May 29 in the Journal of Epidemiology

and Community Health, an international medical publication, proved that nitrogen dioxide and other fine particles found in the air during summer, as well as ozone and nitrogen dioxide found in the air during winter, all cause hypertension, or high blood pressure.

According to the research, titled, "Seasonal Variation of Effect of Air Pollution on Blood Pressure," an increase of 10 micrograms per cubic meter in nitrogen dioxide between July and September resulted in an average rise of 1.8 millimeters of mercury (mmHg) in blood pressure. For the same amount of fine particles, the corresponding figure was 0.5 mmHg.

Between October and December, an increase of 10 micrograms per cubic meter in ozone and nitrogen dioxide led to a rise of 0.5 mmHg in blood pressure. This showed that air pollutants affect blood pressure more in summer than in winter, but that people are not immune to their effects during colder months.

"When air pollution reached serious levels - over 40 micrograms per cubic meter - blood pressure rose as much as 6-8 mmHg," Dr. Hong said. "For older people, this could come as a serious health problem."

According to statistics unveiled by the Korean Center for Disease Control and Prevention, 27.9 percent of South Koreans aged 30 and older and more than half of those in their 50s and older suffer from high blood pressure.

Dr. Hong said he presumed that air pollutants affect the autonomic nervous system of the human body and cause irregular heart beats, which result in high blood pressure.

In a separate report, Dr. Hong said air pollutants could raise the likelihood of senior people suffering stroke and asthma. The report was based on 1999-2003 analyses of stroke and asthma patients in the nation's six major cities, including Seoul. Seniors are twice as likely to develop strokes due to fine particles floating in the air. In particular, those aged 65 or older are 47 times more likely to suffer a stroke due to carbon monoxide than those under that age bracket.

"Air pollutants cause or worsen respiratory and cardiovascular diseases," Hong said. "It is necessary to find a cause and results for environment-related diseases as the nation's population begins aging."

Meanwhile, the Environment Ministry has begun conducting analyses to find how environment-related diseases occur. It commissioned the work with Dr. Hong's research team, who will carry it out on 150 seniors by the end of next year.

81. Boeing Shifts Green Pressure onto Engine Makers

The head of Boeing Co. commercial aircraft unit backed a call by rival Airbus to work closely on producing more environmentally friendly planes, but said real progress was the responsibility of jet engine makers, rather than plane builders. "The questions you ask are more appropriately addressed by the engine guys than the airframe guys," the chief executive of Boeing's commercial plane unit said, when pressed on green issues at a briefing with reporters in Paris. "We're pushing the engine guys as hard as anyone else."

Boeing, along with other manufacturers and airlines, has come under the spotlight recently over the question of emissions and fuel efficiency. The issue is set to play a larger role than ever at the biannual Paris Air Show.

Carson's comments are a direct wake-up call to the world's leading jet engine makers, General Electric Co., Rolls-Royce Plc and Pratt & Whitney, a unit of United Technologies Corp. The best thing the industry can do together is "put pressure on the engine manufacturers" to incorporate new technologies into the engines, Carson said.

Pollution was thrust to the top the aerospace agenda when the president of Boeing's rival Airbus called for a high-level summit of engine makers and plane builders to give it "the highest level of attention." Airbus pledged that by 2020, all of its new aircraft will produce 50 percent less carbon dioxide and 80 percent less nitrogen oxides than in 2000.

Carson welcomed the call for attention, but said green issues were best handled by industry-wide bodies the International Civil Aviation Organization and the International Air Transport Association. "I'm absolutely delighted he sees the need the same way we do for us in the industry to work together to improve the efficiency and social responsibility of the products we bring into the marketplace," Carson said. "If he (Gallois) wants to talk to us, we will always answer the phone."

Boeing reclaimed the title of the world's biggest-selling plane maker last year from Airbus, partly through strong sales of its new lightweight, fuel efficient 787 Dreamliner. The Chicago-based company is outselling Airbus, a unit of European aerospace group EADS 2-to-1 so far this year. Both are likely to announce new orders at the air show.

82. Al Gore Calls G8 Agreement on Climate Change a "Disgrace"

Former US Vice President Al Gore denounced a deal by world leaders on curbing greenhouse gases as "a disgrace disguised as an achievement", saying the agreement struck last week was insufficient. The dedicated climate crusader, whose 2006 global warming documentary won an Oscar, said leaders at last week's G8 summit in Germany had not risen to the challenge to respond to what he calls a "planetary emergency".

G8 leaders agreed to pursue "substantial" reductions in greenhouse gas emissions, stopping short of German Chancellor Angela Merkel's hopes for concrete numerical commitments on emission reductions, including her key aim to cut gases by 50 percent by 2050. They said they would negotiate a new global climate pact that would extend and broaden the Kyoto Protocol beyond 2012.

"The eight most powerful nations gathered and were unable to do anything except to say 'We had good conversations and we agreed that we will have more conversations, and we will even have conversations about the possibility of doing something in the future on a voluntary basis perhaps.'"

The former US Democratic presidential candidate is spearheading efforts to get the world of pop music to back his crusade with the Live Earth concerts on July 7, which will be held in numerous cities around the world.

83. Exxon Says it Never Doubted Climate Change Threat

Oil company Exxon Mobil Corp. never in the past decade doubted the risk from climate change, its global spokesman Kenneth Cohen said in the latest attempt to improve its green credentials. Exxon had simply firmed up, or "evolved", its understanding of the threat, said Cohen, the company's head of public affairs.

The world's most profitable company now accepts that a US climate policy was inevitable and it preferred either a carbon market that would allocate carbon credits solely to suppliers of fossil fuels, such as oil companies, or else a carbon tax, Cohen added. Under an existing European scheme, carbon credits have been given to utilities and will earn these companies tens of billions of Euros in windfall profits.

The commonest greenhouse gas, carbon dioxide, is made by burning fossil fuels like oil. Environmental groups have long accused Exxon of funding research groups that rubbished the threat of a manmade, climate change catastrophe. "We're very much not a denier, very much at the table with our sleeves rolled up," Cohen told reporters.

Cohen also chairs the Exxon Mobil Foundation which last year, alongside Exxon, handed out US\$139 million to charities and research groups.

In 2005 the company withdrew support for the Competitive Enterprise Institute, which the following year ran an advertising campaign promoting carbon dioxide, which said "we call it life". It still funds groups such as the Heartland Institute, which describes global warming as "a prime example of the alarmism that characterizes much of the environmental movement".

But Cohen said Exxon had only ever funded such groups because they were against the Kyoto Protocol on global warming, negotiated in the late 1990s, and which Exxon still rejects -- and not because they cast doubt on climate change. "We started funding a number of these groups because we were opposed to the Kyoto Protocol. We were slow to stop funding."

Exxon now sees as inevitable a federal US law to penalize greenhouse gas emissions, for example through a carbon tax or trading scheme. It prefers what Cohen called an "upstream cap and trade" carbon market, capping emissions at the level of fossil fuel suppliers, rather than energy consumers like utilities, arguing that this would distribute carbon costs more evenly through an economy.

The two-year-old European Union carbon trading scheme takes a "downstream" approach, and power utilities which got most carbon emissions permits for free have passed on the carbon price to electricity consumers regardless, in a practice which is expected to earn them tens of billions of Euros in profits.