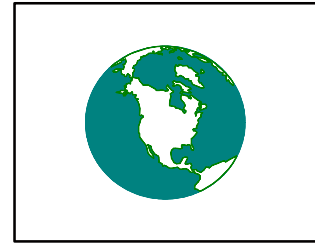


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# CAR LINES

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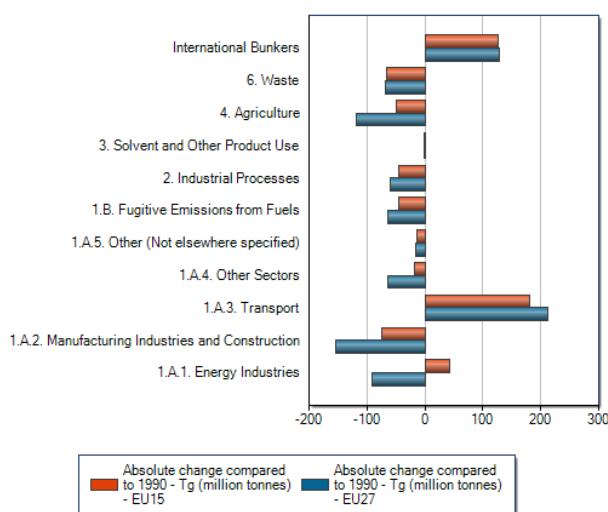
## EUROPE

### 1. EEA Sounds the Alarm on Transport Emissions

Transport continues to contribute disproportionately to Europe's greenhouse gas emissions, poor air quality and noise; and still uses the least efficient modes to move people and goods. The findings are set out in the report 'Transport at a crossroads', launched at the European Parliament in Brussels by Professor Jacqueline McLane, EEA Executive Director, "We know the technology exists to tackle impacts of the transport sector on Europe's environment. However, many vehicles rolling off production lines are anything but green, the freight sector still favours the least efficient transport modes and railways across the EU still do not have a unified system."

"At a time when we need to tackle our economic and environmental problems through sustainable and green solutions, trends in transport are pointing in the wrong direction; and will continue to contribute to air pollution, rising emissions of greenhouse gas and many negative environmental impacts." said Professor McGlade.

- Emissions of GHG have increased by 26 % or 180 million tons, between 1990 and 2006, excluding international aviation and marine transport (EU-15). Representing a higher increase than the annual national emissions for 2006 from Belgium; 132 million tons, or Romania; 157million tons.
- Between 1996 and 2006 the total freight volume measured in ton-kilometers for EU member states increased by 35 % or 650 M ton-km, significantly more than the total freight transport of Germany. Rail freight and inland waterways saw a decline in market share.
- Between 1995 and 2006 car ownership levels in EU-27 increased by 22 %, or 52 Million cars. Representing an increase equivalent to the entire fleet of UK and Spain put together. The number of kilometers travelled by passengers in EEA member countries grew by 65 million kilometers in 2006.



- Air pollutants from vehicles are declining, but air quality is still a problem across Europe.

Well designed policies to manage demand for transport can reduce transport volumes. This would improve the transport efficiency of the economy and decouple transport growth from economic growth. The report also confirms that price signals play a major role in the choices made by consumers; with a 20% increase in demand for bus services related to

a 10% increase in fuel prices.

"We still need clear, measurable, realistic and time related targets for reducing greenhouse gas emissions, air emissions and noise from transport. Perhaps more critically, consumers have indicated through their reaction to volatile prices last year, that fuel and road pricing clearly has a role to play in tackling transport demand." says Professor McGlade.

The report 'Transport at a crossroads' is the annual publication from the EEA's Transport and Environment Reporting Mechanism (TERM), which monitors the progress and effectiveness of attempts to integrate transport and environment strategies.

## **2. NOx Road Transport Emissions Measures in Europe Have Been Effective**

Policies introduced across Europe to reduce the emission of nitrogen oxides (NOx) from road transport have been effective, despite an increase in vehicle fuel consumption between 1990 and 2005, according to a new study.<sup>1</sup>

Man-made nitrogen oxides (NOx) affect climate change, human health and ecosystems. Europe contributed about 30 per cent of global NOx emissions in 1990, excluding emissions from burning biomass and from shipping. Policies introduced between 1990 and 2005 have been effective in reducing NOx emissions in Europe, in contrast to other regions, notably Asia, Africa, Latin America and the Middle East, where NOx emissions continue to rise. In 2005, road transport was responsible for 40 per cent of NOx emissions in Europe according to the study.

The study, partly conducted under the EU project CARBOSOL<sup>2</sup>, detailed trends in NOx emissions in Europe from the 1880s until 2005. Five periods representing distinct trends were identified. 1880-1950 saw moderate growth in the consumption of liquid fuel. During 1950-1980, growth rates were dramatic. Particular attention has been paid to the effect of policy regulations since 1990.

Overall, NOx emissions increased by 13 per cent between 1980 and 1990 and peaked in 1990, despite a fall in emissions in Eastern Europe from worsening economic conditions. In Western Europe, road transport emissions increased, even though consumption of transport fuel dropped in most countries following record high fuel prices. It is argued that regulations from the 1970s to improve combustion in vehicles and reduce emissions of carbon monoxide and hydrocarbons unintentionally contributed to increased NOx emissions.

During 1990-2000, emissions from the traffic sector fell across Europe by 23 per cent overall according to the study. Fuel consumption increased in Western Europe but new regulations and technologies reduced emissions. In Eastern Europe, fewer NOx polluting vehicles on the road contributed to reduced NOx emissions. During 2000-2005, road transport emissions in Western Europe became decoupled from fuel consumption and continue to fall as a result of regulations. In contrast, emissions in Eastern Europe rose due to increased prosperity, largely due to increases in road transport. Differences in emission levels in Western and Eastern Europe were narrowing by 2005.

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<sup>1</sup> Vestreng, V., Ntziachristos, L., Semb, A. et al. (2009) Evolution of NOx emissions in Europe with focus on road transport control measures. *Atmospheric Chemistry and Physics*. 9:1503-1520

<sup>2</sup> CARBOSOL was supported by the European Commission under the Fifth Framework Program.

Both road transport emissions and total NOx emissions fell by about 30 per cent between 1990 and 2005 through regulations such as the Euro Standards for emissions from new vehicles, the Gothenburg Protocol, which sets emissions ceilings for four pollutants, including NOx by 2010, and the National Emission Ceilings (NEC) Directive.

Compared with petrol vehicles fitted with advanced catalytic converters, even late technology diesel vehicles emit higher levels of NOx with a rising proportion of NO2 - a side-effect of oxidation catalysts in the exhaust system. The number of diesel vehicles increased rapidly from 1990 to 2005: if these new vehicles had been petrol-fuelled, NOx emissions would have fallen by a further 30 per cent. Although overall NOx pollution is falling in Europe, the proportion of NO2 is increasing with increased diesel consumption.

The researchers suggest that with the next generation of emission standards to limit NOx (and Particulate Matter) from road vehicles (Euro 5 in 2009-2012, and especially Euro 6 in 2014-2016), NOx emissions will continue to fall for both petrol and diesel vehicles. However, we can expect time delays of up to eight years in some countries for the regulations to become fully effective as replacing older vehicles takes time.

### **3. Dutch Researcher Urges Drastic Measures To Reduce Air Pollution**

Europe should take drastic measures to reduce air pollution, Dutch environmental epidemiologist Bert Brunekreef told the German Press Agency dpa. The director of the Institute for Risk Assessment Sciences (IRAS) affiliated with the University of Utrecht said toxic levels were reducing Dutch people's life expectancy by an average of one year.

The number of children developing allergies also continues to rise as a result of toxic ambient air particles, he said.

Brunekreef, affiliated with the University of Utrecht, said the European Union 'should develop entirely new economic models so that transport over the road, the water and in the air can be reduced dramatically to improve public health. Noting that most factories had moved out of the residential areas in recent decades, Brunekreef said pollution from cars remained the most problematic.

However, 'When it comes to air pollution levels, the World Health Organization (WHO) is already twice as stringent as the European Union,' he said.

The Dutch government announced recently it had received permission from Brussels to postpone its compliance with European air pollution norms until 2011. Although EU air pollution norms are already extraordinarily lenient, according to Brunekreef, the Dutch had also successfully lobbied in Brussels for even less stringent norms.

'Many people still think the Dutch are in the forefront when it comes to the environment,' said Brunekreef. 'In fact, this has not been the case any more in the past five to ten years.' He said the Dutch and the Poles were two EU members who frequently obstructed European measures to protect the environment and public health. 'The car and transport lobby is very strong in Europe, but particularly in the Netherlands,' Brunekreef said, where air pollution levels were among the highest in Europe.

So far, Brunekreef said, the Dutch had focused on reducing air pollution locally, rather than isolating a larger area and reducing the overall pollution levels. The US, he said, had a much more daring approach. 'In order to reduce air pollution problems on a few sites in Manhattan, the US have isolated an area as large as the Netherlands to reduce air pollution.'

#### **4. Swiss Report Says Air Pollutant Levels Exceed National Standards**

Concentrations of harmful air pollutants in Switzerland declined in 2008, although reported levels of nitrogen dioxide, ozone, and coarse particulate matter in the atmosphere remained above national norms in some areas, according to a report issued by the Swiss Federal Office of the Environment (FOE) on April 14<sup>th</sup>.

The report noted that despite improvements in air quality over the past two decades, concentration limits for nitrogen dioxide, ozone, and PM-10 particulates “were exceeded, sometimes significantly” in 2008.

The report cited “excessive quantities” of pollutant emissions in Switzerland and in neighboring countries as the reason. With unfavorable meteorological conditions, concentrations of the pollutants “can be exceedingly high,” it said. Fortunately, 2008 turned out to be a good year for minimizing concentrations of the harmful pollutants, the FOE said, citing a wetter-than-usual summer and the absence of winter thermal inversions north of the Alps that can trap pollutants near the Earth's surface.

The report noted that pollution levels for nitrogen dioxide, which dropped significantly in Switzerland between 1990 and 2000, have remained relatively unchanged since then, with annual variations accounted for by meteorological conditions. As in previous years, the average annual limit for concentrations of nitrogen dioxide—fixed under Swiss legislation at 30 micrograms per cubic meter ( $\mu\text{g}/\text{m}^3$ )—was exceeded mainly in urban areas and along major traffic routes. Most of the recorded levels of pollution exceeding the daily limit of 80  $\mu\text{g}/\text{m}^3$  were also in these areas, with some of the excess levels extending up to five days. In contrast, registered levels of nitrogen dioxide from many rural reporting stations were below the national limit, particularly at higher altitudes.

Pollution levels for ozone in 2008 were the lowest in a decade due to rainy summer conditions throughout Switzerland, particularly north of the Alps. Nevertheless, ozone levels exceeded concentration limits of 120  $\mu\text{g}/\text{m}^3$  based on hourly measurements during the course of the year at all recording stations, with the highest (247  $\mu\text{g}/\text{m}^3/\text{hour}$ ) recorded in the Ticino region south of the Alps.

Concentration levels of PM-10 particulates have remained relatively unchanged for a number of years, the FOE noted, with spikes in 2003 and 2006 due to meteorological conditions. In towns and suburban areas, the 2008 annual average was between 18 and 28  $\mu\text{g}/\text{m}^3$ , while in rural areas and along traffic routes levels of 21-22  $\mu\text{g}/\text{m}^3$  were reported by some stations. Swiss law fixes the average annual maximum limit at 20  $\mu\text{g}/\text{m}^3$ .

The daily average PM-10 limit of 50  $\mu\text{g}/\text{m}^3$  was exceeded between six and 30 days in 2008 at reporting stations in urban and suburban areas, with a maximum of 127  $\mu\text{g}/\text{m}^3$  registered at one



station. Reporting stations in rural areas reported the daily maximum limit being exceeded between 10 and 14 days, with the highest registered concentration at 89 µg/m<sup>3</sup>.

Recorded concentration levels of sulfur dioxide have been declining since 2000, with the highest recorded average annual and daily maximum concentrations in 2008 well below fixed limits, the FOE said. Recorded concentrations of volatile organic compounds and benzene remained stable in 2008, while emissions of lead and cadmium declined slightly and remained well below fixed limits.

## **5. More EU States Shift to CO<sub>2</sub>-Based Car Taxation**

The number of EU countries with CO<sub>2</sub>-related car taxation has gone up to fifteen in 2008. With Germany set to introduce CO<sub>2</sub> related taxation in July of 2009 (see below), all Western European countries levy passenger car taxes that are partially or totally based on the car's carbon dioxide emissions and/or fuel consumption, completing a trend that peaked in 2007 and 2008.

The data stem from the European Automobile Manufacturers' Association Tax Guide 2008. The annual Tax Guide gives an overview of motor vehicle taxation in the twenty-seven Member States of the European Union, the countries of the European Free Trade Association as well as Turkey. In 2008, motor vehicle taxes in the EU 15 added up to EUR 378 billion or 4.1% of GDP.

The Tax Guide is compiled with the help of the national associations of motor vehicle manufacturers or importers in these countries and describes in detail the taxes that are levied on the sale, registration, ownership and the use of motor vehicles in each country.

Romania was the first and so far only Eastern European Member State to introduce CO<sub>2</sub>-related taxation last year as part of a more comprehensive overhaul of vehicle taxation in the country. In most Central and Eastern European countries, the main concern of policy makers remains to reduce the level of old vehicles on the streets with pollutant emission standards of below Euro 3.

Fleet renewal improves both the CO<sub>2</sub> efficiency and the level of pollutant emissions of cars and is essential to achieve the environmental targets society has set. The market incentives and scrapping schemes recently introduced across the EU to soften the impact of the recession benefit both the economy and the environment according to ACEA. Up until March, eleven EU countries had put a fleet renewal program in place.

The European car industry welcomes the clear trend towards CO<sub>2</sub>-related car taxation as fiscal measures are an important tool in shaping consumer demand towards fuel-efficient cars. The environmental results may, however, be negatively influenced by the widely varying systems in each country. The European car industry urges EU governments to show more resolve in harmonizing car taxation schemes.

The car industry advocates a linear system, in which tax levels are directly proportionate to the car's CO<sub>2</sub> emissions and every gram of CO<sub>2</sub> is taxed the same. Car tax schemes should neither include nor exclude specific technologies and be budget neutral in end-effect.

## **6. Germany Revises Car Tax to Focus on Emissions**

Germany's motor vehicle tax will be based on carbon dioxide emissions instead of engine cubic capacity, effective July 1, the Cabinet announced March 6<sup>th</sup>. The new tax formula will apply to newly registered cars. Older cars will be adjusted from 2013 onward.

According to a news release from the Cabinet, owners of vehicles that emit carbon dioxide above a certain level will be taxed at a rate of €2 per gram per kilometer (\$2.56 per 0.057 ounces per mile). The amount exempted from the tax will be 120 grams per kilometer until 2011, 110 grams per kilometer in 2012 and 2013, and 95 grams per kilometer in 2014 and later.

The tax will contribute to reducing carbon dioxide emissions in line with EU standards, the German Cabinet said.

The Cabinet also decided on tax benefits for new cars to help the country's suffering auto industry, as part of a stimulus package passed Nov. 5, 2008. If a new car is registered between Nov. 5, 2008, and June 30, 2009, it is exempt from motor vehicle tax for one year. Vehicles can be exempt from the tax for up to two years if they meet the European emission standards Euro 5 and Euro 6. Tax exemptions as part of the economic stimulus package will end Dec. 31, 2010.

## **7. Dutch Latest to Introduce Car Scrapping Subsidy**

The Netherlands has become the eleventh European country to announce financial incentives for scrapping old cars in favor of newer models to boost flagging car sales and reduce cars' environmental impacts. Owners will get a wrecking premium of up to €1,000 for buying diesel cars fitted with particulate filters or newer petrol cars put on the market after 2001. The aim is to combat particulate matter and nitrogen oxides pollution.

The Netherlands' car scrapping scheme is part of a larger economic stimulus package which also aims to double a Dutch goal for offshore wind for 2020. This goal was originally set out in a national climate and energy strategy adopted in 2007.

## **8. French Bonus Program Cuts Auto Emissions While Boosting Sales**

A government program that rewards buyers of low carbon dioxide-emitting vehicles while taxing buyers of more polluting models helped boost car sales in France in 2008 and allowed emissions to be reduced by 240,000 metric tons over the year, the French Environment and Energy Management Agency (ADEME) reported on April 8<sup>th</sup>.

While other European countries' domestic auto sales plunged as much as 28 percent in 2008's grim economy, the so-called Bonus-Malus program helped limit France's decline to 0.7 percent.

In addition to the Bonus-Malus program, which was introduced in 2007, the introduction in December 2008 of an additional "junkyard" bonus of €1,000 (\$1,300) for trade-ins of cars over 10 years old also boosted year-end sales.

ADEME further reported that French manufacturers had dramatically increased their offerings of low-carbon vehicles over the last six years, putting them at the top of EU rankings. French manufacturers overall cut their cars' average emissions by 9 grams of carbon dioxide per

kilometer (0.5 ounces per mile) to 140 grams (8 ounces per mile). France and Portugal were the only countries to achieve the European Union's 2008 goal of reaching this level.

Among manufacturers, PSA Peugeot-Citroën was the only company to achieve an average of 140 grams of carbon dioxide per kilometer for its vehicles across the European Union, while Fiat averaged 141 grams and Renault averaged 144 grams for EU sales.

On the domestic market, the percentage of French vehicles emitting under 140 grams per kilometer more than doubled over the last seven years, to reach 63 percent of all sales in 2008, up from 50 percent in 2007.

The Bonus-Malus program pays buyers of cars emitting a maximum 130 grams of carbon dioxide per kilometer (7.4 ounces per mile) a bonus ranging from €200 (\$266) to €5,000 (\$6,640), depending on emissions level. The program also hits buyers of cars emitting more than 160 grams of carbon dioxide per kilometer (9.1 grams per mile) with a one-time tax ranging from €200 (\$265) to €2,600 (\$3,420), depending on the emission level.

Sales of four-wheel drive vehicles declined 27 percent in 2008, their first drop since 2004. Average vehicle power dropped for the first time since 1995, falling 5 kilowatts, or 6 percent. Average car weight also dropped 32 kilograms (70.6 pounds), or 2.5 percent.

The Bonus-Malus program ran a deficit of "several tens of thousands of Euros in 2008, but [the government] plans for it to break even by 2010, when emissions thresholds will be toughened." Starting Jan. 1, 2009, owners of cars emitting 250 grams of carbon dioxide per kilometer (14.2 ounces per mile) or more must pay an annual tax of €160 (\$210), with exceptions for handicapped people who need specially equipped cars.

All manufacturers present in France had lowered the average carbon dioxide emissions of their cars sold in the country in 2008. Fiat cut average emissions of its vehicles by 13 grams per kilometer in 2008 to rank best in the country at 130. PSA Peugeot-Citroën ranked second at 135 and Renault third at 136.

Since May 2006, all cars sold in France must be labeled with an energy efficiency rating from A to G. An "A" rating indicates the vehicle emits less than 100 grams of carbon dioxide per kilometer (5.7 ounces per mile), while a G rating means it puts out more than 250 grams. Daimler AG's Smart Fortwo 0.8L was the cleanest-running diesel car sold in France in 2008, at 88 grams per kilometer (5 ounces per mile). Four other models, including the Ford Nouvelle Fiesta, came in at under 100 grams, earning them class A labels.

Diesel-driven cars continue to dominate the French market and they account for the lowest carbon-dioxide emitting models, although their leads in both areas are shrinking, according to ADEME. For gasoline-powered cars, the Toyota iQ 68 VVT-i ranked first, just making the A-label grade at 99 grams per kilometer. This was the first time a gasoline-powered car had broken the 100 gram barrier. Although gasoline-powered cars accounted for only 23 percent of sales in France in 2008, manufacturers made more progress with gasoline-powered engines in lowering CO2 emissions per kilometer and also in increasing the offering of lower-emitting models.

The number of new car models emitting less than 120 grams of carbon dioxide per kilometer had risen from 32 in 2002 to 470 in 2008. The offering of gasoline-driven vehicles emitting less than 120 grams jumped 55 percent from 2007.

### **9. Germany Expands Car Bonus Program to Subsidize Sales of Additional Vehicles**

On April 8<sup>th</sup>, Germany's Cabinet decided to increase funds for the country's car bonus program to a total of €5 billion (\$6.6 billion) to subsidize the purchase of 2 million vehicles, Cabinet spokesman Ulrich Wilhelm said at a press conference. Bonuses will be paid until the end of 2009, as long as the €5 billion is not exhausted first, Wilhelm said.

Under the program, the German government will pay €2,500 (\$3,320) to individuals that buy a new car meeting Euro 4 emissions standards to replace a vehicle that is at least nine years old and which they have owned for at least one year.

The car bonus is part of Germany's second economic stimulus package of more than €50 billion (about \$65 billion), approved earlier this year. By encouraging the purchase of new cars and the scrapping of old ones, the bonus program both stimulates Germany's ailing auto industry and retires the more fuel-thirsty, polluting models.

The bonus program was originally supported with €1.5 billion, subsidizing the purchase of 600,000 cars.

The number of newly registered cars increased by 40 percent in March compared to the previous month.

### **10. UK Electric Car Buyers to Be Given Up To £5,000 in Incentives**

On April 16<sup>th</sup>, the United Kingdom's Department for Transport unveiled plans to offer financial support for consumers to buy the country's first mass rollout of electric and plug-in hybrid cars, to begin in 2011. The department said it will provide motorists with subsidies of between £2,000 (\$2,900) and £5,000 (\$7,240). The move is part of a £250 million (\$362 million) green motoring transformation scheme that includes setting up charging points and related infrastructure to develop a network of "electric car cities" across Great Britain. Less than 0.1 percent of the United Kingdom's 26 million cars are currently electric models. The Department for Transport said the expansion of electric cars could help to cut road transportation's emissions of carbon dioxide, currently at 19 percent of the country's total. The United Kingdom has set mandatory targets to reduce carbon emissions by at least 26 percent by 2020 and 80 percent by 2050, compared with 1990 levels.

In addition, about 200 electric cars will be available in city centers across the country for the public to try out.

In its annual budget announcement the British government is also expected to unveil a new car scrapping scheme to encourage the purchase of newer, less polluting vehicles. This follows similar moves by other EU member states.

### **11. Council Requires Public Agencies to Consider Environment in Vehicle Purchases**

On March 30<sup>th</sup>, EU transportation ministers formally adopted a directive on green procurement, which will require public bodies throughout the 27-nation bloc to factor in environmental criteria when purchasing buses, trucks, and other vehicles. The directive would “improve the transport sector's contribution to fulfilling the European Union's environment, climate and energy policies,” the ministers said in a communiqué issued following a meeting in the EU Council in Brussels.

Under the directive, public authorities will be required to consider the lifetime energy and environmental impacts of vehicles as part of the procurement process. Factors to be taken into account include fuel efficiency and emissions of carbon dioxide and other pollutants. The measure will cover organizations such as public transportation companies; fire, police, and health services; and public utilities.

The ministers' adoption of the directive is the final step in the EU legislative process. The European Parliament approved the legislation in an October 2008 plenary vote.

The European Commission said the directive will improve the environmental performance of public transportation and stimulate the market for more energy-efficient vehicles.

The directive gives EU countries 18 months to implement its provisions.

## **12. EIB Approves Additional Loans of \$1 Billion to Produce Fuel-Efficient Cars**

On April 7<sup>th</sup>, as part of an overall plan to help the European car industry, the European Investment Bank approved more than \$1 billion in loans to three leading automobile manufacturers for the production of fuel-efficient vehicles. With the latest data from the Association of European Automobile Manufacturers showing that auto sales in Europe continue to plunge, the EIB offered about \$500 million to Nissan and its operations in Spain and the United Kingdom, as well as \$400 million to the British operations of Jaguar-Land Rover. Volkswagen received about \$200 million for the production of clean cars in India.

The new loans add to \$4 billion already approved in December to BMW and Volvo AB, which is owned by Ford Motor Co.

“Some 63 percent of the lending approved today for the motor industry will be provided under the EIB's European Clean Transport Facility,” the bank said. “The facility, part of the EIB's wider response under the European Economic Recovery Package, targets significant cuts in vehicles CO2 emissions through research, development and innovation as well as the production of cleaner and more fuel-efficient cars and other transport.”

The EIB is the European Union's long-term lending bank whose shareholders are the individual EU member states.

## **13. Transport Firms to Get More Green Freight Funding**

MEPs meeting in Strasbourg have backed a deal struck with governments in mid-April to increase green freight funding and make it easier for transport firms to apply for it. The money will be allocated under the bloc's Marco Polo funding scheme. EU lawmakers agreed to lower a proposed eligibility threshold for three categories: motorways of the sea, inland waterways and

modal shift. This means more transport firms shifting freight from road to greener modes of transports such as rail will be able to apply.

The agreement closely mirrors a draft resolution adopted by the European Parliament's transport committee at the end of March. It must now be formally endorsed by EU ministers before becoming law.

#### **14. Parliament Confirms Deal on Road Cabotage Rules**

The European Parliament approved a deal reached with governments in March to revise the bloc's cabotage rules. The legislation specifies when road haulers from one EU country can transport goods in another. Under the new rules haulers will be able to make up to three further deliveries within seven days of arrival in another member state. The move is designed to cut pollution by reducing the number of empty trucks on Europe's roads.

MEPs had previously called for all restrictions on cabotage operations to be lifted by 2014. Instead the revised legislation requires the European Commission to monitor the market situation and "propose further opening of domestic road transport markets" if appropriate. The rules must now be rubber-stamped by EU ministers before becoming law.

Meanwhile the parliament backed plans to better integrate climate change issues in the bloc's trans-European transport network (TEN-T) program in a non-legislative resolution. MEPs were responding to a green paper issued by the commission in February.

They stressed the need to promote "climate protection and sustainable development for all modes of transport" in the program, and welcomed the high share of environmentally-friendly projects funded under the program.

The EU should take into account nature protection, pollution and impact assessment legislation into decisions on future TEN-T projects, MEPs said. But such considerations should not become an obstacle to project implementation. The commission has said it will await the results of a public consultation on its green paper before tabling possible legislative proposals.

On Thursday MEPs adopted a first reading resolution on legislation to create new "rail freight corridors" between different EU countries. The freight corridors must connect at least two member states, and would be part of the TEN-T network.

#### **15. MEPs Want Beefed-Up Green Tire Labeling Rules**

The European Parliament has strengthened European Commission proposals for a mandatory tire efficiency and noise label to apply from 2012. MEPs voting in Strasbourg backed most of the recommendations from the parliament's industry committee.

Meanwhile, EU government representatives held their first discussion of the tire labeling proposals. The incoming Swedish EU presidency will try to reach a second-reading agreement with MEPs later this year.

In Wednesday's vote, MEPs backed an EU "low-noise" mark for the quietest tires alongside an A to G efficiency label similar to that used for household appliances. The label would also

include wet grip information and actual noise emissions. Member states would only be allowed to incentivize tires of at least efficiency level C.

The label would apply to all tires manufactured from July 2012. It would be printed on stickers for tires, leaflets at point of sale, and invoices. MEPs dropped the industry committee's call for the label to be molded into the sides of tires.

The commission is asked to set up by September 2010 a new EU tire labeling information site with a fuel efficiency calculator. But contrary to what the industry committee wanted it is no longer required to provide explanatory posters and leaflets to retailers.

MEPs have changed the legal basis of the labeling proposal from a directive to a regulation, meaning it would not require transposition into national law.

### **16. EU Closes Climate Loophole for Car Air Conditioners**

The European Union has closed a loophole that would have allowed car manufacturers to continue putting climate-damaging chemicals in air conditioners of new vehicles beyond a 2011 ban. The move opens up a new market for greener refrigerants, with industry giant Honeywell International pitching its HFO-1234yf coolant against rival carbon dioxide-based systems, such as that of Austria's Obrist Engineering.

The European Union ruled in 2006 that from 2011 it would ban the use of fluorinated chemicals, such as the industry standard known as R134a, which have a powerful climate-warming effect when released into the atmosphere. The move aimed to help the EU meet its commitment of reducing greenhouse gas emissions under the Kyoto protocol, the United Nations' main tool against climate change. The rules apply to all new models of car from 2011, and any new vehicle at all from 2017.

But many of the EU's national authorities decided not to enforce the ban for new vehicle types that were using air conditioning systems already approved in previous models. That would have effectively rendered the law obsolete until 2017 for the millions of European cars produced each year.

A letter from the European Commission to EU member states, states that from January 1, 2011, EU member states may only approve new vehicle models using less environmentally damaging gases, regardless of whether the air conditioning system has been approved before.

### **17. Czechs Fail to Break Eurovignette Deadlock During Their Presidency**

Compromise proposals allowing EU member states to charge trucks for congestion under a revised Eurovignette directive have not succeeded in bridging the gap between governments supporting the idea and those against it. Member states will not reach agreement on revising truck road-charging rules before the summer, the Czech presidency said after a ministerial debate in Brussels. The dossier will be forwarded to the Swedish government which takes over the presidency of the EU on 1 July.

During the debate several member states called for the discussion on including external costs in road charging for trucks to be put on hold while the economic crisis persists.

The Czech Republic had proposed postponing by four years the possibility for member states to charge trucks for congestion in an effort to achieve political agreement among member states. It had also proposed reducing the maximum permissible charge and the times when it may be applied. Some member states welcomed the compromise proposals while others, including the European commission, said they were prepared to negotiate. But many also repeated long-standing positions dating back to last year, when the French presidency of the EU failed to broker an agreement on Eurovignette.

Congestion remains the thorniest issue dividing member states, followed by what should happen to the revenues from road charging. The commission and MEPs favor earmarking the revenues for the transport sector but most EU countries oppose it.

### **18. Spanish State Aid for Greener Cars Gets Green Light**

The European commission has approved a temporary measure to grant subsidized loans to Spanish manufacturers investing in low pollution vehicles meeting emission standards such as Euro 6 or going beyond EU environmental legislation. The loans will be granted for a maximum period of two years and will only apply to firms that began having financial difficulties after July last year. Similar state aid schemes in the UK and France were approved in February.

### **19. Italy Extends Tax Breaks to Owners of Clean Scooters**

On March 4<sup>th</sup>, the Italian Parliament agreed to extend tax breaks originally designed to encourage the purchase of more environmentally friendly cars to two-wheeled vehicles. The original plan, announced on January 28<sup>th</sup>, extended tax breaks of up to €1,500 to buyers of new cars and trucks that are among the top 10 percent of cleanest vehicles. The new plan, effective immediately, allows for tax breaks of up to €500 for two-wheeled motorized vehicles like motorcycles and scooters with at least 100cc engines that are rated among the top 20 cleanest vehicles in their category. Money for the tax breaks will come from an extra fee levied on high-powered sports cars, sport utility vehicles, and other high-polluting vehicles.

### **20. Portugal to Cut Emissions from State Vehicles**

On March 12<sup>th</sup>, citing the need to replace aging state vehicles with “an environmentally advanced automobile fleet,” Portugal's finance and environment ministries announced emissions limits on 90 percent of new vehicles purchased by the government. Under the “new state vehicle management model,” 20 percent of vehicles purchased in 2009 must not emit more than 120 grams of carbon dioxide per kilometer. Another 70 percent will have a limit of 140 g/kg (7.9 ounces per mile). For each new vehicle purchased, one vehicle must be removed from the existing fleet of approximately 27,500 vehicles, which average 11 years in age.

### **21. Swedish Parliament Approves New Tax Exemptions for ‘Green’ Automobiles**

On March 17<sup>th</sup>, the Swedish Parliament approved a new plan to provide long-term vehicle tax exemptions to eco-friendly vehicles and extend the official definition of a “green” car, following news that a subsidy program for new “green” cars is to end prematurely. The plan also will raise general vehicle taxes in line with vehicles' carbon dioxide emissions.



The plan, part of a new climate and energy proposal, will replace the current rebate of 10,000 kroner (\$1,184) on the purchase of new “green” vehicles with a long-term tax exemption, making eco-friendly cars exempt from vehicle taxes for the next five years. While the bill will come into force on January 1, 2010, the vehicle tax exemption will be effective from July 1, 2009, the end date of the former subsidy plan.

According to a March 10<sup>th</sup> government statement, the general vehicle tax will increase by 5 kroner (59 cents) for each emitted gram of carbon dioxide. New buses, camper vans, and light goods vehicles will be included in the new system. Diesel taxes will be raised by 0.20 kroner (2 cents) Jan. 1, 2011, followed by a second increase of 0.20 kroner (2 cents) Jan. 1, 2013. The vehicle tax on heavy goods vehicles, large buses, and camper vans will be reduced to compensate for the diesel tax increases.

The new plan will extend the definition of a green vehicle to include gasoline and diesel vehicles that emit less than 120 grams of carbon dioxide per kilometer. Previously, the definition applied to vehicles running on renewable fuel and certain hybrids, as well as electric cars. In addition to private vehicles, the new tax exemption will apply to company cars and other cars bought by businesses.

The former subsidy regime, which was put in place in April 1, 2007, was originally set to remain in force until Dec. 31, 2009. However, the government announced in September that the subsidies would end six months earlier than planned. At the time, Environment Minister Anders Carlgren blamed the plan's success for its premature end after predictions that it would cost the state 815 million kroner (\$96.5 million) by June 2009 against a previously estimated 250 million kroner (\$29.6 million).

About 30 percent of all new cars are currently classified as “green cars.” Sweden's green motorists already enjoy other incentives, such as reduced parking and congestion charges. These will remain broadly intact under the new regime.

## **22. Toyota, French Electric Company to Test Fleet of Rechargeable Cars**

On March 18<sup>th</sup>, French energy giant Electricite de France (EDF) and Toyota announced a large-scale road-test project for a fleet of 100 rechargeable hybrid vehicles in Strasbourg, France. The project will use an innovative infrastructure that will, among other things, allow identifying vehicles for energy billing.

Hailing the project as a “world first for de-carbonized vehicles,” the Ministry of Ecology, Energy, Sustainable Development, and Territorial Planning said the vehicles will be rented to “institutional partners” in the Strasbourg region over three years, starting at year's end.

According to a joint statement by the companies, the vehicles will use a Toyota technology that allows the battery to be recharged through an electrical plug. The recharge system will indicate charging status and will allow identification of the vehicle for energy billing, they said.

EDF subsidiary Electricite de Strasbourg will install several hundred charging stations for participants in their homes, at their businesses, in parking garages, and on highways, the companies said.

The partnership, which started testing rechargeable vehicles in France 2007 and expanded the program to the United Kingdom in 2008, is part of a Toyota global project that the automaker plans to extend to Japan and the United States starting at year's end, the companies said.

For short distances the cars can be used as electric vehicles, while for longer distances they function as a conventional hybrid.

With the program, Toyota and EDF said they hope to speed development of the technologies involved and to improve public acceptance, with a view to eventually wider marketing.

In February, the Ministry of Ecology announced plans for a national strategy to build an infrastructure for recharging electric and hybrid vehicles, including a public-private initiative to spur the market by purchasing some 100,000 of the vehicles by 2012.

### **23. European Commission Imposes Duties On US Biodiesel**

The European Commission has imposed temporary duties on imports of US biodiesel. "This decision was taken on the basis of clear evidence that unfair subsidization and dumping of US biodiesel has taken place, and that this is harming otherwise competitive EU industry," said the Commission.

The biodiesel industries are subsidized both in the European Union and in the United States. However, the European Biodiesel Board has complained to EU trade regulators that the US exporters benefit twice, first from US government subsidies (in particular tax credits) to produce biodiesel, and then from subsidies granted by individual European governments when the fuel is sold in Europe.

The level of the measures--anti-subsidy duty and anti-dumping measure, applied together--is set at between 211.20 EUR and 237.00 EUR per ton for the anti-subsidy duties and between 23.60 EUR and 208.20 EUR per ton for the anti-dumping measures. The measures came into effect from 13 March and will be in place for four months while the investigation and contacts with stakeholders continue. At the end of this time, the Commission will make a final recommendation to EU member states on whether or not to impose so-called 'definitive' duties, which if imposed would normally last for five years.

Under EU rules, the Commission has powers to impose temporary duties lasting up to six months. Any definitive measures would need approval by EU member states.

### **24. MEPs Strengthen Draft Petrol Vapor Recovery Law**

EU service stations selling more than 3,000 cubic meters of fuel annually should install vapor recovery systems by 2018, MEPs have announced. The aim is to reduce emissions of volatile organic compounds, which contribute to ground-level ozone pollution. Members of the parliament's environment committee agreed to bring forward the deadline proposed by the European commission by two years. Governments support the commission's proposal. Greek rapporteur Dimitrios Papadimoulis had proposed a 2015 deadline.

MEPs also agreed to increase the minimum capture efficiency of vapor recovery systems from the commission's proposed 85 per cent to 90 per cent. Mr. Papadimoulis wanted a minimum capture efficiency of 95 per cent.

Mr. Papadimoulis failed to find support among fellow MEPs to increase the law's scope to fuelling stations larger than 2,000 m<sup>3</sup>. However, the law should also apply to stations beneath residential buildings as proposed by the commission, the committee said. The proposals will be voted by the parliament's full assembly in early May.

## **NORTH AMERICA**

### **25. EPA Proposes Endangerment Finding Clearing Way to Regulate GHGs**

Greenhouse gases contribute to air pollution, which may threaten public health or welfare, the US Environmental Protection Agency said on April 17<sup>th</sup>. The proposed endangerment finding, which followed a scientific review that the US Supreme Court ordered in 2007, said that concentrations of six gases (carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride) are at unprecedented levels because of human activities.

By declaring climate-warming pollution a danger to human health and welfare, the Obama administration opened the way to regulating US greenhouse gas emissions, in a sharp policy shift from the Bush administration. The White House said President Barack Obama would prefer legislation over administrative action to curb greenhouse emissions.

Congress is already considering a bill to cut emissions of carbon dioxide, which is emitted by cars, coal-fired power plants and oil refineries, among other sources.

EPA's declaration was seen as a strong signal to the international community that the United States intends to seriously combat climate change.

In its announcement, the EPA said, "greenhouse gases in the atmosphere endanger the public health and welfare of current and future generations" and human activities spur global warming. The EPA's endangerment finding said high atmospheric concentrations of greenhouse gases "are the unambiguous result of human emissions, and are very likely the cause of the observed increase in average temperatures and other climatic changes."

The EPA's finding is essential for the US government to regulate climate-warming emissions like carbon dioxide under the Clean Air Act. Regulation is not automatically triggered by the finding - there will be a 60-day comment period. But as that period proceeds, legislation is moving through Congress aimed at cutting carbon dioxide emissions with a cap-and-trade system, which would let those companies that emit more than the limit buy credits from those that emit less.

EPA scientists last year offered evidence of the health hazards of greenhouse emissions, but the Bush administration took no action. It opposed across-the-board mandatory regulation of climate-warming pollution, saying this would hurt the US economy.

The US Supreme Court ruled two years ago that the EPA has the authority to make these regulations if human health is threatened by global warming pollution, but no regulations went forward during the Bush administration.

Excerpts from the EPA's endangerment finding include:

- "The scientific evidence clearly indicates that atmospheric levels of the six greenhouse gases are at unprecedented elevated levels due to human activities, and that most of the observed global and continental warming can be attributed to this anthropogenic rise in greenhouse gases."
- "It is clear that current and projected levels of greenhouse gases and resultant climate change are already adversely affecting, and will continue to adversely affect, public welfare within the meaning of the (Clean Air) Act."
- "These six gases, once emitted, remain in the atmosphere for decades to centuries." The gases are: carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride.
- "The heating effect caused by the human-induced buildup of greenhouse gases in the atmosphere is very likely the cause of most of the observed global warming over the last 50 years."
- "Transportation sources subject to regulation ... are the second largest greenhouse gas-emitting sector in the US, after electricity generation, and accounted for 24 percent of total US greenhouse gas emissions ... Total US greenhouse gas emissions make up about 18 percent of the world's greenhouse gas emissions."
- "The impacts of climate change are increased drought, more heavy downpours and flooding, more frequent and intense heat waves and wildfires, greater sea level rise, more intense storms, and harm to water resources, agriculture, wildlife and ecosystems ... Over the 21st century, changes in climate will cause some species to shift north and to higher elevations and fundamentally rearrange US ecosystems."

In a second proposed finding, EPA found that combined emissions from motor vehicles contribute to the atmospheric concentrations of the six greenhouse gases. The proposed findings now enter a public comment period before EPA issues final findings, the agency said.

The US president wants progress before United Nations climate change talks in Copenhagen in December to signal US commitment and encourage other countries, particularly China and India, to make concessions.

## **26. California Approves Nation's 1st Low-Carbon Fuel Rule**

California air regulators have adopted a mandate requiring low-carbon fuels, part of the state's wider effort to reduce greenhouse gas emissions. The California Air Resources Board voted 9-1 to approve the standards, which are expected to serve as a template for a national policy. The rules call for reducing the carbon content of fuels sold in the state by 10 percent by 2020, a plan

that includes counting all the emissions required to deliver gasoline and diesel to California consumers - from drilling a new oil well or planting corn to transporting it to gas stations.

Transportation accounts for 40 percent of greenhouse gas emissions in the state. "The emissions from this sector have traditionally grown in California at a rate that exceeds even our growth in population," Board Chair Mary Nichols said before the vote.

Although crafted for California, the standard is being studied by officials from other states, the federal government and even the European Union. At least 11 other states in the US East are considering adopting a low-carbon fuel standard for cars by the end of the year. In addition, the main climate bill being considered in the US Congress seeks to regulate greenhouse gas emissions from fuels.

The measure also sets the stage for emerging alternative fuels -- such as cars that run on compressed natural gas and electric vehicles like plug-in hybrids that run on both gasoline and rechargeable batteries -- to compete with second-generation ethanol. That fuel, cellulosic ethanol, is expected to be made in commercial amounts from non-food feedstocks like switchgrass and fast-growing trees.

To give fuel producers time to adjust, the bulk of the carbon limits required under the regulation do not go into effect until 2015.

California's regulators ranked 11 different ways of making corn ethanol. They found that traditional distilling methods used in the Midwest, accounting for the bulk of US supplies, emit the most carbon over a lifecycle measured from production to combustion. The state gave much better carbon savings scores to corn ethanol made in California with a distillery fired by a blend of natural gas and crop waste, also known as biomass.

The regulation launches the state on an ambitious path toward ratcheting down its overall heat-trapping emissions by 80% by mid-century -- a level that some scientists deem necessary to avoid drastic global climate disruption.

The proposed Low Carbon Fuel Standard rates different fuels based on their carbon intensity, measured as the number of grams of carbon dioxide released for every megajoule of energy produced. When the indirect land-use effects of biofuels are included, some types of ethanol rate worse than gasoline.

Fuel type	Carbon intensity	Carbon intensity (Including land-use changes)
California gasoline {+1}	95.85	95.85
Midwest ethanol {+2}	75.10	105.10
California ethanol {+3}	50.70	80.70
Brazilian ethanol {+4}	27.40	73.40
Landfill gas (bio-methane) {+5}	11.26	11.26
{+1} with 10% ethanol		
{+2} with some of the plant's power coming from coal		
{+3} with the plant's power coming from natural gas		
{+4} made from sugarcane and shipped here		
{+5} derived from landfills in California		

Source: California Air Resources Board

### **27. EPA Seeks Public Comment on US Ethanol Blend Rate**

The US Environmental Protection Agency is seeking public comment on whether to allow a higher level of ethanol to be blended into gasoline. More than 50 ethanol manufacturers petitioned the EPA to raise the maximum blend level for ethanol in gasoline from 10 percent to as much as 15 percent.

The current limit of 10 percent has been in place since 1978, but ethanol manufacturers say that level must be increased to accommodate rising federal ethanol production mandates. The Renewable Fuel Standard enacted by Congress requires 11.1 billion gallons of renewable fuels such as ethanol to be blended into the nation's gasoline supply this year. The mandate, rising annually, will reach 36 billion gallons in 2022.

With a 10 percent blend rate, the Energy Department estimates that as early as 2013 the amount of ethanol required to be produced will exceed the amount the US vehicle fleet could consume. If the slowing economy continues to cut into gasoline demand, the so-called 10 percent blend wall could be reached a year earlier.

The EPA is currently working with the Energy Department to test how higher levels of ethanol would affect vehicle engines.

The agency will accept input from the public on the ethanol blend issue for 30 days. The agency must make a decision on the request by December 1<sup>st</sup>.

### **28. Senate Foes Agree To Look At Black Carbon**

Sens. Tom Carper (D-Del), Jim Inhofe (R-Okla.), Barbara Boxer (D-Calif.) and John Kerry (D-Mass.) have introduced legislation directing the U.S. Environmental Protection Agency (EPA) to study the environmental impact of black carbon and the most cost-effective ways to reduce its emissions to improve public health and reduce global warming.

Black carbon - emitted by old, dirty diesel engines - is thought to be the second or third largest contributor to global warming after carbon dioxide.

This bipartisan bill directs the EPA to do a four-phase study that 1) develops a universal definition of black carbon; 2) identifies global black carbon sources and reduction technologies; 3) identifies current and possible international funding opportunities to mitigate black carbon emissions; and 4) identifies opportunities for future research and development.

The senators stressed that the United States has made progress in reducing this air pollutant by regulating new diesel engines and by a voluntary national diesel retrofit program. But, because the nation still has more than 11 million old diesel engines without proper emission control technology, black carbon remains a serious health and environmental threat.

This black carbon study is due to Congress in one year.

## **29. Judge Won't Block Ports' Clean Trucks Programs**

A federal court judge upheld the clean trucks pollution reduction program championed by the ports of Los Angeles and Long Beach in a ruling. U.S. District Court Judge Richard Leon denied the Federal Maritime Commission's request to block parts of the program that would reduce diesel emissions at the ports by replacing older trucks with cleaner models.

The plan is an "ambitious, multifaceted program to reduce high levels of air pollution while also striving to improve the ports' safety and security," Leon wrote.

The federal agency challenged the programs in federal court in Washington, D.C., arguing that Los Angeles would require all truckers to become employees of trucking companies and jeopardize the ability of independent haulers to work at the ports. But the judge ruled the agency failed to prove the clean truck program reduced competition, raised prices or caused irreparable economic harm.

The cities of Los Angeles and Long Beach approved plans last year aimed at significantly reducing diesel emissions at the ports by replacing 16,800 older trucks with newer, cleaner models. By 2012, all trucks passing through the ports must meet tougher 2007 federal vehicle emission standards.

Last month, the 9th U.S. Circuit Court of Appeals ruled that a temporary injunction should be granted to stop the ports from requiring harbor trucking companies to replace 20 percent of their owner-operator drivers with employee drivers by the end of this year, as the ports originally mandated. That case, brought by the American Trucking Associations, which represents 37,000 trucking companies, was remanded back to U.S. District Judge Christina A. Snyder in Los Angeles. On April 29<sup>th</sup>, Judge Snyder issued a preliminary injunction halting some new rules, including one that prohibits drivers at the Port of Los Angeles from being independent contractors. That was a provision sought by Los Angeles Mayor Antonio Villaraigosa and the International Brotherhood of Teamsters.

The trial is scheduled to begin in December.

Supporters of the nation's most ambitious effort to clean the air around a major seaport complex said that the most important part of the plan -- bringing in newer and cleaner trucks -- would proceed. Villaraigosa said he was "pleased that the heart of the clean-truck program is in place and we're moving full steam ahead with removing dirty diesel trucks from our communities and harmful pollutants from our air."

Some said that the effort to clean the air at the ports could suffer significant delays. That's in part because there are doubts about whether independent drivers can earn enough to replace their older rigs. "Without the employee program, port cleanup goals could be severely delayed because most independent owner-operators cannot afford to maintain and repair their trucks," the Natural Resources Defense Council said in a statement.

## **30. US Greenhouse Emissions Rose 1.4 Pct In 2007**

US greenhouse gas emissions rose 1.4 percent in 2007, compared to the previous year, the US Environmental Protection Agency has reported. The report also indicates that US emissions of

climate-warming gases such as carbon dioxide and methane rose 17.2 percent from 1990 to 2007.

The increase in 2007 was mainly due to a rise in carbon dioxide emissions related to fuel and energy consumption, the environmental agency said in a statement. There was more demand for heating fuel and electricity due to cooler winter and warmer summer temperatures, compared to 2006. There was also increased demand for fossil fuels to generate electricity, coupled with a significant decrease -- 14.2 percent -- in hydropower generation to meet this demand.

Total emissions of the six main greenhouse gases in 2007 were equivalent to 7,150 million metric tons of carbon dioxide. These gases include carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons and sulfur hexafluoride.

### **31. Climate Change Impacts on Regional Air Quality Report Just Released by EPA**

The U.S. Environmental Protection Agency has released a report on the potential impacts of climate change on regional U.S. air quality. The report, "Assessment of the Impacts of Global Change on Regional U.S. Air Quality: A Synthesis of Climate Change Impacts on Ground-Level Ozone," concludes that there is a potential for climate change to make ozone pollution worse in some regions and that future ozone management decisions may need to account for the possible impacts of climate change. Climate change also could increase the number of days with weather conditions conducive to forming ozone, potentially causing air quality alerts earlier in the spring and later in the fall.

The Global Change Research Program in EPA's Office of Research and Development led the development of the peer-reviewed report, which was done in partnership with EPA's Office of Air and Radiation. The report combines the results of new EPA-funded and existing scientific research and acknowledges that uncertainty remains over the specific regional patterns of climate change induced ground-level ozone changes.

### **32. Obama Climate Chief: U.S. Law Vital To Global Deal**

President Barack Obama's top climate negotiator has warned that international efforts to tackle global warming are doomed unless the United States enacts laws to limit greenhouse gas emissions. "There will be no new global deal if the United States is not part of it and we won't be part of it unless we are on track in enacting our own domestic plan," Todd Stern told the Senate Foreign Relations Committee.

Countries from around the world are scheduled to meet in Copenhagen in December to try to embrace a new plan for attacking climate change problems.

"Unless we stand and deliver by enacting strong, mandatory nationwide climate and energy legislation, the effort to negotiate a new international agreement will come up short," Stern said. He said the Obama administration in the next few days will unveil a series of proposals to be discussed in Copenhagen.

The House of Representatives is taking the lead in Congress in an effort to write legislation imposing tough new caps on emissions of carbon dioxide and other pollutants that are dumped



into the atmosphere by sources including manufacturers and utilities. The House Energy and Commerce Committee hopes to finish a bill by the end of May and House Speaker Nancy Pelosi has promised to get it approved by the full House this year.

Democrats who control both chambers of Congress will have a tougher time passing a climate control bill in the Senate, however, where a small band of opponents can use procedural roadblocks to stop legislation. Opponents, including many Republicans, say imposing new greenhouse controls on U.S. companies would prompt them to move factories and jobs overseas, especially to developing countries such as China and India.

Senate Foreign Relations Committee Chairman John Kerry said China lately has been "moving more rapidly than the United States" and could exceed Beijing's short-term goals for a 20 percent reduction in "energy intensity." Long-term, such progress could help China build a competitive edge in developing next-generation batteries and electric cars, Kerry said. Energy intensity is a measure of carbon emissions related to the size of a country's overall economy. While a country's absolute carbon emissions might rise, governments might try to show they have made environmental progress by citing a decrease in emissions relative to the size of their growing economies.

### **33. U.S. Congress Begins Drive for Climate Change Bill**

The U.S. Congress has begun work on a bill that would fundamentally change the way American factories and power plants use and supply energy as part of the Obama administration's drive to cut harmful greenhouse gas emissions. President Barack Obama and his fellow Democrats who control both houses of Congress have made combating climate change a priority.

Over the next five weeks the committee will debate and fine-tune a draft bill that would drastically reduce the amount of carbon dioxide and other industrial emissions that scientists say contribute to climate problems. At the bill's core is a "cap and trade" plan to reduce carbon emissions -- lowering them by 20 percent by 2020, 42 percent by 2030 and 83 percent by 2050, with 2005 as a base year.

Manufacturing companies and utilities would get permits to emit less and less carbon and other pollutants, while also being allowed to trade those permits to other firms as they lower their reliance on fuels contributing to climate change.

The proposals also would set tough requirements on utilities, which would have to generate 25 percent of electricity from renewable sources by 2025.

While the House could pass a bill by mid-year, the tougher fight will be in the Senate, where Republican opponents can use procedures to try to block controversial measures.

If Congress cannot agree on a climate control bill, Obama is expected to order the EPA to impose new regulations to address the problem.

The EPA released an analysis on the House bill's impact, which found it would raise electricity prices by 22 percent by the year 2030 -- although the total energy bill for the average U.S. household would rise by only 9 percent after various government rebates.

The House Energy and Commerce Committee held four days of hearings on its proposal. In the face of staunch opposition from most Republicans and concerns of several moderate Democrats, Representative Edward Markey announced that industries would be allowed some free pollution permits under the legislation, to be written in coming weeks. In acknowledging some permits would be free under the bill, Markey may have taken a major step toward enticing some wavering Democrats to support the measure. Representative Rick Boucher, an influential Democratic member of the House Energy and Commerce Committee, has told reporters that he wants nearly 100 percent of the permits to be given to industry for free.

Republicans, meanwhile, intensified their rhetoric against the Democrats' "cap and trade" climate change initiative. Representative Mike Pence, the third-ranking House Republican, called it "essentially an economic declaration of war" on states that rely heavily on coal as an energy source.

House Energy and Commerce Committee Chairman Henry Waxman, who wrote draft climate control legislation with Markey, wants his panel to complete work on the bill by the end of May, teeing up a vote by the full House later in the year.

As the panel waded through testimony, a bipartisan group of congressional leaders huddled at the White House with Obama to talk about upcoming legislative battles, including the climate change bill, which aims to cut carbon emissions by 83 percent from 2005 levels by 2050.

Al Gore urged passage this year, saying failure to pass legislation could cause the collapse of world climate negotiations. Gore told members of the House Energy and Commerce Committee that passing a climate law is a "moral imperative" that will affect US standing in the world community. He said that the passage of this bill would be met with "a sigh of relief" at the Copenhagen meeting aimed at crafting a follow-up agreement to the carbon-capping Kyoto Protocol.

In the fourth straight day of climate hearings on Capitol Hill, Gore praised the carbon-capping legislation crafted in the Energy and Commerce Committee for its plan to rapidly introduce new green technologies that will create new jobs.

Gore appeared with former Senator John Warner, a Virginia Republican, who helped shepherd a carbon-cutting bill to the Senate floor last year. The bill ultimately died on a procedural maneuver, but paved the way for this year's effort.

#### **34. US Public Says Environmental Priorities Should Be Air and Water Pollution**

A majority of Americans say that they are paying attention to environmental issues, but only three in ten or less are paying a great deal of attention to these issues. Three in ten are paying a great deal of attention to air pollution (31%), water pollution (30%) and water shortages (29%) with one-quarter (25%) of Americans saying they pay a great deal of attention to combating global warming. Only two in ten adults say they pay a great deal of attention to the extinction of certain species (21%), deforestation (21%) and reducing Americans' carbon footprint (20%).

These are some of the results of a new BBC World News America/The Harris Poll® of 2,123 adults surveyed online between April 6 and 8, 2009.

Among these different environmental issues, some are higher priorities than others. When asked which two issues government officials should make their top priority, two in five adults say air pollution (42%) and water pollution (40%). One third say combating global warming (34%) and water shortages (34%) while lesser numbers say reducing Americans' carbon footprint (18%), deforestation (16%) and the extinction of certain species (11%) should be top priority.

Different regions have different environmental priorities. Due to recent droughts, a plurality of Westerners (44%) say water shortages should be the top priority for government officials to address. Almost half of Midwesterners (47%) believe air pollution should be a top priority as do 45% of Easterners.

When being environmentally sustainable is defined as "taking from the earth only what it can provide indefinitely, thus leaving future generations as much as we have access to ourselves", just under half of Americans (48%) say they have done something to make their lifestyle more environmentally sustainable while one-quarter say they have not (27%) and are not sure (26%). Last year over half (53%) of Americans say they had made changes to their lifestyle to be more environmentally sustainable, while 25% had not and 22% were not sure. Again there are regional differences and those in the west are more likely to say they have made changes (52%) while those in the East are less likely to say they made changes (44%).

When it comes to what changes people have made, certain things are done more than others to make one's life environmentally sustainable:

- More than four in five adults who have made changes are recycling (85%), a high number but down from 91% who said they were recycling last year;
- Seven in ten (71%) are paying bills online and/or receiving paperless statements, not very different from the 73% who said this last year;
- About half of those who are making changes are buying more locally produced food and/or goods (53%, up from 49% last year), bringing their own bags to stores (51% up from 39%) and buying green household products (50%, up from 47%);
- Under two in five people who have made changes are installing resource friendly appliances (39% down from 46% last year), buying more used products (37% up from 31% last year) and discontinuing purchases of plastic water bottles (37% up from 30%); and,
- Some other changes people have made are to compost (27% up from 23%), carpooling (14% down from 16%) and buying a hybrid car (5% up from 3%).

### **35. U.S. Brings "Message of Hope" To Climate Change Talks**

The top U.S. climate change official brought a "message of hope" to a summit of environment ministers from rich and poor nations, saying Washington was committed to curbing greenhouse gases. Lisa Jackson, head of the U.S. Environmental Protection Agency (EPA), told the Group of Eight (G8) industrial countries and major developing nations that U.S. President Barack Obama was willing to work tirelessly toward a deal on global warming.

"I bring from President Obama his message of hope, his message of change, his message of common purpose for the environment," Jackson said in her first visit overseas. "The U.S.

government now fully acknowledges the urgency and complexity of climate change challenges," she told a news conference at the three-day meeting.

The remarks from Jackson, who said she received a "warm welcome" from other delegates, marked a clean break with the former administration of George W. Bush which refused to sign up to the 1997 Kyoto protocol, binding rich nations to carbon cuts. Obama has pledged to cut U.S. greenhouse gas emissions to 1990 levels by 2020. Washington favored a greater role for coal technology and renewable energy, Jackson said, but needed to resolve issues related to waste before decisively pursuing nuclear energy.

The G8 meeting grouped for the first time nine developing economies, including Brazil, India and China -- by some calculations the world's largest carbon producer -- in an effort to forge a worldwide consensus. Many delegates called for these economies to also make explicit commitments to cut emissions.

### **36. Industry Highlights Legal Hurdles For Reversing Bush GHG Waiver Denial**

President Barack Obama directed EPA Administrator Lisa Jackson on her first day in office to reconsider the former administration's waiver denial. The agency is under a congressional deadline to issue its decision by June 28, and the comment period on the reconsideration notice closed on April 6<sup>th</sup>. Former Bush EPA Administrator Stephen Johnson based his waiver denial on a finding that the vehicle standards were not necessary for California "to meet compelling and extraordinary conditions" in the state. In a memo to Gov. Arnold Schwarzenegger (R-CA) Johnson also said he was denying the waiver because the effects of climate change in the state were not unique compared to the effects in the rest of the country.

Industry groups are warning the Obama EPA it faces major legal hurdles if it tries to overturn the Bush agency's denial of California's request for a Clean Air Act waiver to issue vehicle greenhouse gas (GHG) standards, saying the new administration has failed to provide a reasoned legal basis for potentially reversing the denial.

States and activists supportive of the waiver request, however, say that a new test that the Bush EPA created to determine whether the California standards met an "extraordinary and compelling need" is illegal and at odds with past waiver decisions. In its February 12<sup>th</sup> reconsideration notice EPA said the denial was a "substantial departure" from past precedents on air act waiver requests. While the agency stressed in a February 6<sup>th</sup> press release that its review of the waiver denial is "impartial," the language of the notice boosted activists, states and others who believe the Obama EPA is prepared to overturn the denial and approve the waiver.

The claims foreshadow potential litigation arguments over EPA's final decision on the waiver reconsideration, which is widely anticipated to result in a reversal of the Bush agency's denial.

Internal agency documents unveiled soon after Johnson's announcement showed that EPA staff and its legal counsel advised that granting the waiver is the most scientific and legally defensible decision.

The Obama administration is now working on separate rules to address GHGs from passenger vehicles and light trucks. It is widely anticipated that EPA will grant the California waiver and adopt a modified version as the federal standard.

The Alliance of Automobile Manufacturers says in comments that EPA carries a significant legal burden “to explain why its first decision on the waiver was no longer the correct one . . . EPA would need strong reasons to reverse its prior decision, and those reasons would need full articulation in the record to permit judicial review.”

The Utility Air Regulatory Group (UARG) finds that EPA’s reconsideration notice does not contain any firm legal basis for a potential reversal of the waiver denial. The group finds fault with the notice for inaccurately describing the legal basis for the waiver denial and lacking reasoned analysis of why the agency may reverse its prior decision. It is calling for EPA to resubmit its reconsideration notice to correct these errors.

In the Feb. 12 reconsideration notice, EPA says only that the denial departs from precedent, without acknowledging that California’s GHG standard also departs from its previous standards for non-GHG pollutants, according to UARG. The group also notes that EPA presented its legal arguments defending the waiver denial before the U.S. Court of Appeals for the District of Columbia Circuit “less than three months ago.” The fact that the state standards regulate GHGs for the first time “is the very factors on which EPA itself principally relied in its waiver denial and in its arguments to the D.C. Circuit in support of the denial. Omission of any discussion of those factors and of EPA’s reasoning underlying its 2008 final action skews presentation of the facts and creates an inaccurate impression of that action as an arbitrary deviation from precedent unaccompanied by any articulated justification grounded in the statute,” UARG comments say.

However, states and environmentalists say the new test EPA crafted for determining whether the state standards meet the bar for extraordinary and compelling need is illegal. “This alternative basis is contrary to voluminous evidence in the administrative record, based on the clear demonstration otherwise in the administrative record, and it also applies a new and unsupported standard that is divorced from the statutory text and longstanding agency practice,” comments from the Environmental Defense Fund say.

In addition, a May 19 House Oversight & Government Reform Committee memo cited EPA staff briefings from 2007 that said the “most defensible action” is to grant the waiver, and “Denial based on lack of need for standards to meet compelling and extraordinary conditions has high legal risk.”

California and others say the state is entitled to a waiver of federal preemption as long as its standards would be at least as protective as applicable federal standards. EPA must grant the state’s waiver request, given the broad deference it is granted under the air act to set vehicle emissions standards, waiver advocates say.

### **37. Canadian Province Tightens Air Quality Objectives**

The Canadian province of British Columbia has established a new air quality objective for fine particulate matter, Healthy Living and Sport Minister Mary Polak said on April 9<sup>th</sup>. The new objective for fine particulate matter 2.5 microns or smaller in diameter (PM-2.5), including particles created by wood and diesel combustion, is 25 micrograms per cubic meter. The air quality objective, among the most stringent in Canada, will help guide day-to-day air quality management initiatives, Polak said in a statement. It will provide the basis for issuing air quality advisories, initiating burning restrictions under the province’s Open Burning Smoke Control

Regulation, and requiring emissions reduction strategies under municipal air quality bylaws, she said. The objective also sets a province-wide annual target of an average limit of 8 micrograms per cubic meter, and an annual air shed planning target of 6 micrograms per cubic meter.

### **38. Canada Seeks to Mirror U.S. Standards for Vehicles' Greenhouse Gas Emissions**

Canada's federal government will introduce before the end of 2009 regulations to limit carbon dioxide emissions from passenger automobiles and light-duty trucks, Environment Minister Jim Prentice said on April 1<sup>st</sup>. The rules will meet the government's commitment to adopt emissions-reduction regulations by the 2011 model year and will allow Canada to harmonize its approach to vehicle emissions with that of the United States, Prentice said in a statement.

Prentice said the new regulations will help Canada meet its goal of reducing its total greenhouse gas emissions 20 percent from 2006 levels by 2020. The transportation sector currently accounts for about 25 percent of total emissions, and passenger vehicles and light-duty trucks in turn account for nearly half of transportation sector emissions, he said.

Canada's announcement came less than one week after the U.S. Department of Transportation announced March 27 that it would raise fuel economy standards for passenger cars and light trucks in the 2011 model year to a combined average of 27.3 miles per gallon. Environment Canada said its federal regulations would establish standards similar to the new U.S. fuel economy standards for 2011 model year vehicles. The agency published a formal Notice of Intent to introduce the regulations in the April 4<sup>th</sup> issue of the Canada Gazette, Part I.

The government will work closely with U.S. officials on developing common national greenhouse gas and pollution emissions standards for 2011 and later model year cars and light-duty trucks, partly to maintain a strong and competitive Canadian automotive industry, Environment Canada said.

"This approach ensures that the government has the flexibility to align with U.S. fuel economy regulations as they emerge, which is crucial to achieving a harmonized approach that takes both our environment and economy into account," it said. "Further, this approach is in line with other international jurisdictions that are moving to implement greenhouse gas-based vehicle regulations, notably the European Union. [And it] will be consistent with the government of Canada's existing use of CEPA to establish standards limiting smog-forming air pollutant emissions from new vehicles in alignment with the national standards of the U.S. Environmental Protection Agency."

### **39. EPA Stimulus Guide Sets First-Time GHG Goals for Diesel Program**

EPA is urging applicants for stimulus law diesel engine retrofit funds for the first time to quantify the greenhouse gas (GHG) emission cuts that retrofit projects may achieve, a move that effectively expands the program's goals and could provide the Obama administration with data to bolster its claim that stimulus funds will aid the fight against climate change.

The stimulus law provides an additional \$206 million for EPA's existing diesel emission grants programs, which fund activities such as installing technologies verified to reduce engine idling or the purchase of vehicles retrofitted to reduce emissions. The funding -- roughly two-thirds

subject to competitive bidding -- are open to applications from state and local governments, nonprofit organizations and tribal agencies.

EPA already requires that diesel grant recipients in their applications describe the environmental outcomes of the projects for which they are seeking funding, and with the stimulus diesel funds for the first time is encouraging, but not requiring, applicants to quantitatively estimate a project's annual GHG reductions.

The 2005 Diesel Emissions Reduction Act (DERA) that originally authorized \$1 billion over five years for the agency's diesel grant program did not directly mandate such considerations. The agency is able to address GHGs because one of the law's goals is to reduce fuel consumption, a measure that also results in GHG reductions.

Quantification of GHG reductions from diesel stimulus projects for the first time in grant applications that could bolster the Obama administration's claim that the stimulus law will help combat global warming. At the signing of the stimulus law in Denver, CO, on February 17<sup>th</sup>, Obama said that funds provided under the law would use "19th and 20th century technologies to battle 21st century problems like climate change and energy security."

On March 20<sup>th</sup>, EPA announced the availability of \$20 million under the stimulus law for its Clean Diesel Emerging Technologies Program, \$156 million for the National Clean Diesel Funding Assistance Program, and \$30 million for the agency's SmartWay Clean Diesel Finance Program. Guidance documents for the programs now encourage applicants to quantitatively project annual GHG reductions in funding requests, along with traditional measures including cuts in nitrogen oxides, volatile organic compounds and fine particulate matter. In a press release, EPA said grantees will use the funding to implement projects that will cut thousands of tons of diesel emissions and "reduce premature deaths, asthma attacks and other respiratory ailments, lost work days, and many other health impacts every year."

#### **40. U.S. Proposes Cuts In Emissions From Oceangoing Ships**

On March 30<sup>th</sup>, the U.S. Environmental Protection Agency announced that it has proposed, in cooperation with Canada, a rule requiring an 85 percent reduction in particulate matter emissions from oceangoing ships in designated offshore areas by 2015. The proposal would also cut nitrogen oxide emissions by 80 percent by 2016 from new ship engines operating in the emissions control areas.

Canada and the United States proposed the designations on March 27<sup>th</sup> to the Marine Environment Protection Committee of the International Maritime Organization.

Particulate matter reductions in the emissions control areas would be realized by limiting the sulfur content in diesel fuel used by the ships to 0.1 percent. The sulfur content currently can be as high as 4.5 percent. In contrast, sulfur in diesel fuel that is used in domestic trucking is limited to 15 parts per million (0.0015 percent).

Sulfur in fuel causes emissions of sulfur dioxide, which form fine sulfate particles. EPA blames fine particles in general for thousands of deaths each year. A study published in December 2007 in the American Chemical Society journal *Environmental Science & Technology* estimated that ship emissions cause about 60,000 premature deaths worldwide each year. According to

EPA data, the creation of the emissions control areas would save up to 8,300 U.S. and Canadian lives every year by 2020.

The emissions reductions would be required in designated emissions control areas off the entire United States coastline, except portions of Arctic Alaska, and all of the Canadian Pacific coastline and the Canadian Atlantic coastline to the northern tip of Labrador. The areas would extend 230 miles from the coastline.

The Marine Environment Protection Committee reached an agreement in October 2008 to reduce emissions from oceangoing ships with engine displacements greater than 30 liters per cylinder. These ships include oil tankers and cargo ships. The committee is meeting in July to review proposed emissions control area designations by nations that are party to the agreement.

The agreement requires the sulfur content in fuel to be reduced from 4.5 percent to 3.5 percent in 2012, and to 0.5 percent in 2020. In emissions control areas, the sulfur content can be no more than 0.1 percent in 2015.

In the emissions control areas, nitrogen oxide emissions from ships built in 2016 and after would be limited to 3.4 grams per kilowatt/hour. Outside of the emissions control areas, the limits would be set at 14.4 g/kWh for ships built in 2011 or later, and 17 g/kWh for ships built from 2000 to 2011. According to EPA, air pollution from oceangoing ships is expected to grow rapidly. By comparison, pollution from other mobile sources, such as trucks and trains, is declining under U.S. regulations.

Oceangoing vessels, primarily foreign owned and operated, dock at more than 100 U.S. ports. More than 40 U.S. ports are in metropolitan areas that fail to meet federal air quality standards.

The new rules could cost shipping companies \$3.2 billion in higher fuel costs and new equipment, according to EPA estimates. EPA Administrator Jackson said that translates into an increased cost of about 3 cents for each pair of sneakers shipped into the United States.

While some ocean carriers are voluntarily switching to cleaner-burning fuel as they reach port destinations on the West Coast, legislation introduced two years ago by Sen. Barbara Boxer, D-Calif., would have put tighter low-sulfur fuel standards on the fast track. Sulfur content of fuel used by domestic and foreign ships would have been required to be cut from an average content of 27,000 ppm to a maximum of 1,000 ppm by December 31, 2010. The legislation died before reaching a floor vote.

That initial Senate version, called the Marine Vessel Emissions Reduction Act of 2007, was strongly supported in Southern California by Los Angeles Mayor Antonio Villaraigosa and Geraldine Knatz, executive director at the Port of Los Angeles. Both are also ardent supporters of the clean-trucks program at the ports of Los Angeles and Long Beach. While the trucking industry supported the environmental goal of cutting pollution from harbor trucks by 80 percent over the next five years, a major faction of the industry represented by the American Trucking Associations opposed certain requirements that they claim would have re-regulated harbor trucking.



In a remarkable showing of ocean gateway solidarity, U.S. port authorities praised efforts to reduce the allowable emissions from ocean-going ships. Members of the American Association of Port Authorities (AAPA) endorsed the U.S. Environmental Protection Agency's joint proposal with Canada to the International Maritime Organization (IMO) to designate specific coastal water areas as an Emission Control Area, or ECA.

#### **41. Ocean Ships Are Air Pollution Risk, NOAA Study Finds**

A study by the National Oceanic and Atmospheric Administration, the most comprehensive yet, found that commercial vessels — freighters, tankers and cruise ships — generate enough air pollution to pose "a significant health concern for coastal communities." The study was conducted last summer and its findings were released last month. Lead researcher Daniel Lack of NOAA's Earth System Research Laboratory at the University of Colorado determined that the 51,000-odd commercial vessels now plying the world's oceans spew almost as much air pollution as half the total number of automobiles on the planet.

For two months, Lack and his colleagues on a 274-foot NOAA research vessel traveled from Charleston, S.C., to Houston, prowling shipping lanes and mechanically "sniffing" the exhaust of 1,100 merchant ships. Their examination of the exhaust residue led to the study's conclusions.

The problem is most severe in the Mediterranean, India and East Asia, where populations are dense and shipping prevalent.

#### **42. Obama Boosts Light Duty Vehicle Fuel Economy Standards**

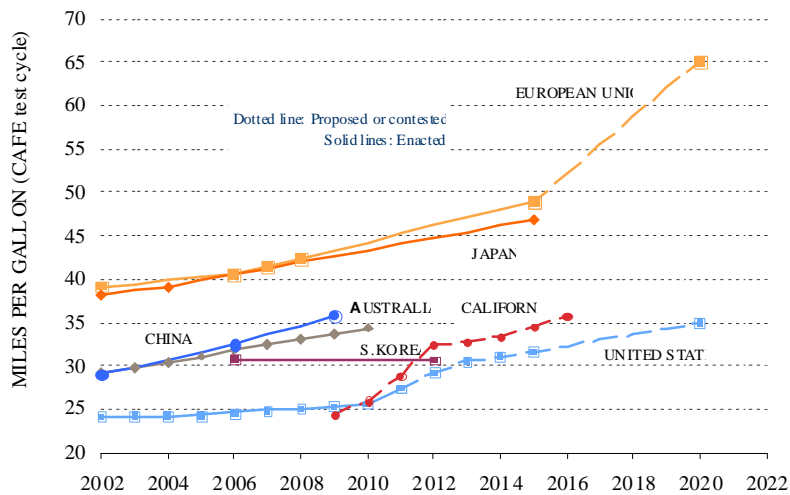
On March 27th 2009, the National Highway Transportation and Safety Administration (NHTSA), an agency of the Department of Transport (DOT), established final corporate average fuel economy (CAFE) standards for model year 2011 light-duty vehicles. The final 2011 standards represent an increase of 8 percent from the 2010 standards, although they are only 1.1 percent higher than the actual fuel economy of new vehicles in 2008. This is because in the recent years, the passenger cars have consistently exceeded their fuel economy standards of 27.5 mpg.

The rule establishes a separate size based fuel economy standard for passenger cars and light trucks. If the vehicles sales mix were to remain unchanged between now and 2011, the fuel economy of new vehicles sold in model year 2011 will be:

Passenger cars:	30.2 mpg (183 g/km of tailpipe emissions of CO <sub>2</sub> )
Light trucks:	24.1 mpg (229 g/km of tailpipe emissions of CO <sub>2</sub> )
All Light-duty vehicles:	27.3 mpg (202 g/km of tailpipe emissions of CO <sub>2</sub> )

NHTSA will reevaluate the standards for 2012 to 2015 and issue the next round of fuel economy standards within the next year. The Environmental Protection Agency (EPA) is also expected to formulate a proposal for regulating the greenhouse gas emissions from light-duty vehicles later this year. (See story below.)

Actual and Projected Fuel Economy for New Passenger Vehicles by Country/Region, 2002-2022



Source: Passenger Vehicle Greenhouse Gas and Fuel Economy Standards: A Global Update, ICCT, March 2009 update.

The new standards are the first increase in fuel economy standards for cars in more than 25 years.

The standards will save 887 million gallons of fuel and reduce carbon emissions by 8.3 million metric tons, according to the Department of Transportation.

That's a key first step toward Congress's mandate that automakers by

2020 reach 35 miles per gallon—a 40 percent increase over the current average of 25 miles per gallon. Rep. Edward Markey, who chairs a subcommittee on energy and the environment, said in a statement that the administration's announcement represents a "historic first step."

The Obama administration has had to carefully balance the needs of Detroit automakers, and the effects of their potential failure on the economy in Michigan and elsewhere, against its pledge to fight climate change. Obama promised during his campaign to support a 4 percent annual increase in efficiency standards.

The next big test will come in May, when it's thought that the administration will make a decision on whether to allow California and 13 other states to enact laws to reduce carbon emissions. Those laws would cut new-vehicle emissions by 30 percent by 2016. In one of his first moves in office, Obama issued a directive ordering the EPA to re-examine the Bush administration's rejection of the states' bid.

The Center for Biological Diversity (CBD), whose successful suit challenging the Bush administration's 2006 CAFE rules prompted the current standard, called the rule "woefully inadequate. . . . It's unfathomable that Obama would issue regulations worse than Bush, but that is exactly what he has done," CBD's Kassie Siegel said in a March 27 statement. The standard is weaker than the May 2008 Bush administration proposal of a 27.8 mpg combined standard, 31.2 mpg for passenger cars, and 24 mpg for light trucks. But it is stricter than the current combined standards of 25.3 mpg and passenger vehicle standard of 27.5 mpg. CBD notes that the 2009 Obama light truck rule is only 0.1 mpg stronger than the 2006 Bush standard that was tossed out in federal court.

NHTSA says it revised its assumptions following the steep downturn in the economy and the near-bankruptcy it has forced on the auto industry. "In several cases, the agency concluded on

the basis of analysis of that additional information that the costs in the [proposed rule] and Draft [Environmental Impact Statement (EIS)] were underestimated and benefits overestimated,” the preamble to the final rule says.

Along with the final rule, the agency also issued a final EIS, which reflects updated assumptions from the Bush draft, including higher estimated future fuel and carbon dioxide prices.

“[B]y limiting the standards to levels that can be achieved using technologies, each of which are estimated to provide benefits that at least equal its costs, the net benefit maximization approach helps to assure the marketability of the manufacturers’ vehicles and thus economic practicability of the standards,” the final rule says.

The final rule also looks to the future, when it will have the opportunity to conduct a fuller analysis based on new methodologies. “In looking ahead to the next CAFE rulemaking, the agency emphasizes that while the methodologies, economic and technological inputs and decision making criteria used in this rule were well-supported choices for the purposes of the [model year] 2011 rulemaking, they were not the only reasonable choices that the agency could have made for that purpose,” the final rule says. The rule says policy assumptions about energy and climate change as well as the methodologies will change in future rulemakings.

The transportation sector accounts for about a third of U.S. greenhouse gas emissions, and any rational plan to address the climate crisis must achieve dramatic fuel economy improvements. Despite the existing legal mandate from the Energy Policy and Conservation Act that the standards be set at the “maximum feasible level,” the U.S. standards lag far below current standards in Europe, Japan, China, and other countries.

The new standards come in response to a federal appeals court decision in 2007 striking down the Bush standards issued in 2006. The court ruled that the standards failed to adequately consider the vehicles’ greenhouse gas emissions. As the Bush administration was formulating new standards, Congress passed the Energy Independence and Security Act in December 2007, which mandates that the agency require the combined car and truck fleet reach a minimum of 35 mpg by 2020. In May 2008, the Bush administration issued a new proposal. While those standards were well below what are technically feasible and required by law, they were higher than the final decision issued by the Obama administration.

### **43. California Air Board Chair Says EPA Will Adopt State's Auto GHG Rules**

The chair of California's Air Resources Board (CARB), Mary Nichols, said she believes U.S. EPA will adopt the state’s greenhouse gas (GHG) emission regulations for vehicles as a national standard, according to prepared text of a keynote speech she delivered on March 23<sup>rd</sup> in Paris, France. Nichol's comments come at a time when automobile industry officials are continuing to make that case that a single national GHG standard is necessary for automobile manufacturers, rather than a patchwork that would occur if California and other states adopted a separate standard than the federal government.

Besides the National Highway Traffic Safety Administration's (NHTSA) corporate average fuel economy standards the industry faces the possibility of EPA setting a standard under section 202 of the Clean Air Act and a potential for a separate California standard if EPA grants the state its request for a waiver to impose GHG limits on automobiles.

In her speech, Nichols also noted that state officials are facing increasing pressures and challenges in implementing their climate change regulatory program because of recession-fueled objections to certain GHG regulations by small businesses and industry groups.

Nichols made her speech at the "Climate Change Policy: Insights from the U.S. and Europe" conference in Paris, sponsored by the France-Stanford Center for Interdisciplinary Studies and the French-American Foundation.

#### **44. US EPA Proposes Emission Standards For Existing Stationary Engines**

The US EPA has proposed national emission standards for hazardous air pollutants (NESHAP) for stationary reciprocating internal combustion engines (RICE) that are not already covered by earlier EPA regulations. The proposed rule would set emission limits for engines that:

- are located at "area sources" of air toxics emissions;
- have a site rating of less than or equal to 500 hp, are located at "major sources" of air toxics emissions, and were constructed or reconstructed before June 12, 2006;
- have a site rating of greater than 500 hp, are located at "major sources" of air toxics emissions, and were constructed or reconstructed before December 19, 2002.

These engines are used at facilities such as power plants and chemical and manufacturing plants to generate electricity and power pumps and compressors. They are also used in emergencies to produce electricity and pump water for flood and fire control. "Major sources" of air toxics are defined as those that emit 10 short tons per year of a single air toxic or 25 short tons per year of a mixture of air toxics.

"Area sources" are those sources that are not "major sources".

The proposed rule limits emissions of hazardous air pollutants by introducing emission standards for carbon monoxide and/or formaldehyde. Engine owners and operators can meet the limits by installing aftertreatment controls. The EPA expects that owners or operators of existing rich-burn engines, which burn natural gas, gasoline or other fuels, would install a non-selective catalytic reduction (NSCR) system to meet the proposed emission limits.

The proposed rule considers two aftertreatment options for existing diesel engines:

1. Oxidation catalysts (OC) a technology that can achieve significant (up to 90%) air toxics reductions from diesel engines, but can only reduce fine particle pollution by about 25-30%.
2. Catalyzed diesel particulate filters (CDPF), which can reduce air toxics and fine particle emissions (including black carbon) from diesel engines by over 90%.

Owners or operators of existing engines would be required to:

- - install emission control equipment that would limit air toxics emissions by up to 90%,

- - perform emissions tests to demonstrate engine performance and compliance with rule requirements, and
- - use ultra-low sulfur diesel fuel in non-emergency engines with a site rating greater than 300 hp.

The EPA is soliciting comments on the proposal, including comments on the feasibility of using CDPF's on existing stationary diesel engines, and the control of fine particles as a surrogate for air toxic metals.

The final rule is to be adopted by February 10, 2010.

Emissions from most existing engines covered by the proposal still remain unregulated by the EPA. Emissions from certain categories of existing stationary engines (at major sources of air toxics emissions) were regulated in June 2004 and in January 2008. In June 2006, EPA finalized emission standards for new stationary diesel engines.

#### **45. Obama Endorses 'Cash-For-Clunkers' To Bolster Demand For Autos**

On March 30<sup>th</sup>, President Barack Obama endorsed a program under which the U.S. government would provide an incentive for consumers to trade in older cars and buy replacements that are more fuel efficient. This so-called "cash-for-clunkers" program is designed to bolster demand and help protect the environment.

In a speech on the U.S. automobile industry, Obama noted that several members of Congress have proposed such programs, and that they have also been successful in boosting auto sales in Europe. However, the president did not clarify in his comments whether he would support a program that specifically encourages the purchase of cars assembled in the U.S., as has been proposed by several members of Congress. Passage of a program that does not provide an equal incentive to purchase cars regardless of where they were assembled could violate global trade rules and spark a dispute with trading partners, sources said.

Under H.R. 1550, U.S. consumers would receive a cash voucher upon trading an older car or truck for a "new fuel efficient vehicle" that was assembled in North America, but not in other locations. In 2009 and 2010, the legislation would provide cash vouchers of \$4,000 or \$5,000. The most favorable terms are given to cars manufactured in the United States, not in Canada or Mexico. For example, consumers could only receive a voucher of \$5,000 if purchasing a car assembled in the United States.

Rep. Donald Manzullo (R-IL) on March 19 introduced legislation that would spur demand for cars but also avoid any potential violations of global trade rules, according to a House aide. The program would provide one-time cash vouchers to anyone purchasing a vehicle, and does not require trading in an older vehicle or meeting any other requirements in order to receive the voucher.

#### **46. GM Decides To Delay Pickup Diesel**

Plans to build a new 4.5L Duramax light-duty turbodiesel for General Motors' full-size pickups have been indefinitely suspended, according to Ward's Automotive Reports. The advanced

turbocharged V8 had been in the works for over three years and was scheduled to be offered as an option on 2010 Chevrolet Silverado and GMC Sierra trucks.

The OEM cited an extensive product review conducted as part of long-term viability plans and current economic conditions as reasons for halting the diesel project. "GM remains optimistic that the Duramax 4.5L V8 diesel may be a viable option in its future portfolio," the company said in a statement quoted by Ward's.

The small diesel was scheduled to begin production later this year at GM's Tonawanda, NY, plant. The suspension does not affect the larger 6.6L Duramax turbodiesel currently offered in GM's heavy pickups.

#### **47. Ford, GM Post Biggest Drops, Extending U.S. Sales Slump**

Ford and General Motors posted the sharpest sales declines among major automakers as the industry headed toward its sixth straight monthly drop of more than 30 percent. Ford's sales fell 42.1 percent and GM's were down 44.7 percent, for its fifth decline of more than 40 percent in the past six months. Chrysler LLC tumbled 39.3 percent, its smallest percentage slide since October. Nissan North America dropped 37.7 percent, American Honda 36.3 percent, and Toyota Motor Sales U.S.A. 39 percent.

The initial results are in line with the average forecasts of analysts who had projected a seasonally adjusted annual sales rate below 9 million units. That would mark a new 27-year low.

Ford said it built 349,000 vehicles in the first quarter, 26,000 fewer than estimated in its latest forecast. American Honda Motor Co. said it would shut factories for 13 days in May, reducing North American production by 62,000 vehicles.

#### **48. Levin Asserts Role In Climate Bill; Automaker Needs Emerge As Issue**

House Ways and Means Committee trade subcommittee Chairman Sander Levin (D-MI) has asserted himself into the effort to develop a U.S. carbon control regime, saying that provisions to prevent the transfer of jobs abroad are a necessary part of any U.S. legislation, as are measures to deal with the increased energy and material costs that downstream users of carbon-intensive goods such as car makers would face.

Levin said that he does not yet know which approach he favors for addressing the issue of leakage, which is the technical term for the transfer of jobs and pollution abroad from a country adopting carbon controls to lower-cost nations that do not. He also indicated he would not produce his own carbon control bill, and instead work with the Energy and Commerce Committee on its legislation.

The major proposals to deal with carbon leakage are to impose types of tariffs on imports from countries not taking comparable action to the U.S. on climate change, to lower the cost for U.S. manufacturers by supplying free carbon permits, or to implement a combination of the two. If tariffs are imposed on carbon-intensive imports from countries that fail to take comparable action to the U.S. on curbing climate change in conjunction with domestic cap-and-trade or carbon taxes, the price of these products such as steel, aluminum and glass, will rise.

Combined with rising energy costs, this could squeeze the manufacturers that use these inputs, particularly car makers, and drive them to locate their production in other countries.

#### **49. San Francisco's Hybrid Taxis Prove Their Worth**

San Francisco's first 15 hybrid taxis, all Ford Escapes, have made it to about the 300,000-mile mark -- nearing the city's official taxi retirement age -- and are being taken off the road. Their longevity shows that hybrid technology is more durable than previously imagined; they also have saved drivers about \$9,000 a year, depending on gas prices and number of shifts driven.

The hybrid Escapes were introduced with fanfare at a City Hall news conference in February 2005, touted by Mayor Gavin Newsom as the nation's first fleet of hybrid taxis. Ten were owned by San Francisco Yellow Cab and five by Luxor Cab.

Today, 14% of San Francisco's 1,438 taxis are hybrids. Fifteen percent of New York's 13,237 cabs are, according to a spokesman for the city's Taxi and Limousine Commission, which just passed a hybrid incentive plan (see below). Just more than 1% of Chicago cabs use hybrid technology. The city of Los Angeles is considering including such vehicles in its 2,300-car fleet but there are none yet.

Yellow Cab is San Francisco's biggest taxi firm and has more hybrid vehicles than any other, said Hal Mellegard, company general manager, including 75 Escapes -- small SUVs -- and 21 Nissan Altimas. Some drivers are loath to give up the sturdy, gas-guzzling Crown Victoria cabs, with their "police-taxi package" of heavy-duty transmission, suspension and brakes, and all-vinyl interior, he said. But with erratic gas prices and a deep recession, the hybrids are increasingly popular.

"A driver driving a Crown Victoria might get \$50 worth of gas. A driver driving a Ford Escape got \$23," Mellegard said, when gas was \$4.50 a gallon. "The money went into the driver's pocket."

In 2007, the city taxi commission required companies to reduce greenhouse gas emissions by 20% below 1990 levels. They must accomplish that by 2012, with twice as many cabs on the road.

The Ford Escape is the first American hybrid. When it was unveiled five years ago, customers feared that the batteries wouldn't last and would be expensive to replace, said Gil Portalatin, hybrid systems application manager at Ford Motor Co. San Francisco's experience, he said, showed that "these things are tougher than nails. . . . We warranty the batteries for 150,000 miles and here you have cabs going out of service at 300,000 -- because that's the law, not because the cab's used up."

The retiring hybrid cabs also have shown that, even on San Francisco's notorious hills, the regenerative brake system's brake pads last far longer than non-hybrid brakes. With a regenerative braking system, brake pads are not used to slow the car in stop-and-go traffic. Instead, when the brake pedal is depressed, it sends a signal to the electric motor, which slows the vehicle and also charges the car's high-voltage battery. The brake pads are used only at the very end of the stopping cycle.

Yellow Cab is awaiting the arrival of 10 new Ford Fusion sedans, which promise even better gas mileage than the Escapes. The company has had the Nissans only a couple of months, so it's still evaluating their performance.

### **50. New York's Green Taxi Incentives Approved**

The New York City Taxi and Limousine Commission Board of Commissioners have approved a financial incentive program to increase the use of fuel efficient and environmentally friendly taxicabs. Mayor Michael Bloomberg announced the incentive program last November as a part of a series of initiatives designed to further increase the use of clean-air taxicabs.

The commission regulates "lease caps," the amount a fleet or taxi owner may charge for the use of a taxicab or medallion license. The incentive program will allow fleet owners to increase the lease cap fee charged to drivers in fuel efficient vehicles by \$3 per shift, which will offset the increased cost of purchasing a fuel efficient vehicle. The driver, while paying the increased lease cap fee, will still see significant savings due to the reduced fuel costs, which he or she pays. Taxicab drivers in fuel efficient vehicles achieve an average fuel savings of at least \$15 per shift, which adds up to about \$5,000 a year.

The incentive will generate approximately \$2,000 per vehicle per year for fleet owners. To further incentivize the use of fuel efficient taxis, the commission will propose to decrease the lease cap fee an owner can charge a driver by \$12 per shift if the vehicle is a Crown Victoria or another non-fuel efficient vehicle, costing fleet owners approximately \$8,500 per year, per vehicle.

The city's incentive strategy follows a decision in U.S. District Court for the Southern District of New York last October that prohibited the city from mandating the use of cleaner, more fuel-efficient taxicabs. The ruling by Judge Paul Crotty blocked the city from implementing the mayor's initiative to green the New York City's taxi fleet by requiring taxicab replacement vehicles to meet certain fuel efficiency standards consistent with hybrid models already available for sale in the New York City market. The initiative would have resulted in an all-hybrid taxi fleet by 2012. The judge sided with taxi owners who argued that fuel economy and vehicle emissions standards are under the jurisdiction of the federal government.

### **51. Navistar Seems Alone Pushing EGR Over SCR For US2010 Compliance**

The competition between "advanced EGR" and urea-SCR technologies for meeting the 2010 emission standards seems to be isolating Navistar as the first approach has only been chosen by Navistar. Navistar promotes the EGR technology as a simpler approach to meet the 2010 regulations, and warns of alleged pitfalls in the urea-SCR pathway including:

- Keeping urea tank full will be a hassle to long-haul drivers
- Difficulties in finding urea (diesel exhaust fluid, DEF)
- The high cost of urea
- Drivers will be exposed to dangerous fumes while handling it, and
- The SCR equipment will add some 150 kg to the truck's weight.

The competitors--Daimler, Cummins, Volvo/Mack—reply



- High EGR rates cause heat release problems, putting too much stress on the engine
- Fuel consumption reductions with the SCR approach between 3 and 5% relative to 2007 engines; these reductions are expected to more than off-set the cost of urea, which will be consumed at a rate of about 2% relative to fuel
- On the other hand, the EGR approach is generally believed to bring a fuel economy penalty, the magnitude of which remains uncertain.

The fuel economy benefit in SCR engines will come in part from passive regeneration of the diesel particulate filter, which is promoted by increased NOx levels in the engine-out exhaust. Volvo, for example, says that particulate filters on its SCR engines will not undergo active regeneration at all during "normal highway operating conditions". In contrast, particulate filters on EGR engines are exposed to low NOx levels, and require more active regeneration which is a source of fuel penalty.

## **ASIA-PACIFIC**

### **52. MEP Minister Says China to Meet 2010 Pollution Targets**

China is on track to meet its pollution targets by 2010 even though it is still struggling to deal with its coal-dependent energy sector, the country's environment minister has reported to parliament. By the end of 2010, China aims to cut the emissions of major pollutants by 10 percent compared with 2005 levels. In a report delivered to China's parliament, Minister Zhou Shengxian said annual sulfur dioxide emissions are projected to hit 22 million tons by 2010, 10 percent lower than the 2005 baseline, but with 70 percent of China's energy needs still met by coal, the challenges remain daunting.

Zhou noted that pollution continued to blight China's urban areas, with particulate matter and sulfur dioxide emissions still "at a relatively high level," and eastern coastal cities also suffering heavy amounts of ash haze and ozone pollution.

Pollution also remains a serious problem in the Yangtze and Pearl River delta regions, as well as in the Beijing-Tianjin-Tangshan area of northern China. (See story below)

He said that China would continue to eliminate obsolete steel smelters, power plants and paper mills over the course of 2009, and was currently drawing up new emission reduction targets for the 2011-2015 period. These are expected to focus on NOx control.

### **53. Chinese Cities Set To Jointly Fight Air Pollution – A Regional Approach**

Ensuring clean air will no longer be the task of a single city - it will be the responsibility of a cluster of cities whose pollutants affect each other, according to a plan being finalized by the Chinese government. The economic and industrial hubs - the Yangtze River Delta, the Pearl River Delta, and the Beijing-Tianjin-Hebei region - will be the pioneers executing the plan, Environmental Protection Minister Zhou Shengxian said while presenting a report on controlling air pollution to the top legislature.

The plan is likely to include regional emission caps, Zhang Lijun, vice-minister of environment, told reporters. He said the plans, which are being drafted, are expected to take effect from the

beginning of the 12th Five Year Plan (2011-15). Zhou said the three regions will take the lead because "they see concentrated air pollutant emissions, and suffer heavy air pollution".

According to ministry figures, the three regions occupy only 6.3 percent of the country's area but consume 40 percent of the country's coal and produce half of its steel. They are also home to at least 200 million people.

"However, because air pollutants are transient, the current plans of individual cities do not solve the problem," Zhou said.

A report from the National People's Congress' Environmental and Resources Protection Committee shows about 30 percent of air pollutants in Beijing are from other places. It also says acid rain, ozone and small particles occur more densely in these city groups than other parts of the country. The Yangtze River Delta and the Beijing-Tianjin-Hebei region see heavy photochemical presence, a severe and dangerous pollution created as nitrogen oxides and hydrocarbons react to sunlight. And the Pearl River Delta is suffering rising dust haze pollution, according to the report. It says the region saw more than 100 days of haze last year.

"Given the situation, air pollution controls based on a single city are costly and ineffective," Pu Haiqing, vice-chairman of the committee, said. "It's imperative for cities to join hands."

Zhang said the successful regional air pollution control measures adopted during last year's Olympic Games will be valuable experience for planning. Beijing and neighboring municipality Tianjin as well as Hebei, Inner Mongolia, Shanxi and Shandong cut emissions to ensure clean air for the Games. The plan also covered the control of dust, automobile and industrial emissions, and coal consumption.

Meanwhile, at least two indices - ozone and particles less than 2.5 microns (PM2.5) - will be part of the air quality evaluation system to offer people a clearer picture of air quality. The current evaluation system includes only three indices: Sulfur dioxide, carbon monoxide and particles less than 10 microns (PM10), but they do not reflect true air quality, the environment minister said.

#### **54. Pollution in Chinese Cities Remains 'Extremely Severe'**

Air pollution in China's cities remains very serious, state media quoted a minister as saying, amid an ongoing battle to clean up the skies in China. "There is the potential for serious air pollution incidents to happen, and the air environment situation is extremely severe," environmental protection minister Zhou Shengxian told parliament, the official People's Daily said.

"The difficulties in managing air pollution are intensifying, and environmental regulations as well as protection systems need to be further strengthened," he said.

A recent report by the state Xinhua news agency, citing a survey conducted in November last year in 320 cities, said the average air quality in two out of five Chinese cities ranged from "polluted" to "hazardous". Zhou said car exhaust fumes also played a large role in air pollution in the country's big and medium-sized cities, the report said.

China's worst air pollution was concentrated in the Yangtze River delta, which includes Shanghai, and the Pearl River delta -- the manufacturing hub in the south of the country that is home to Guangzhou and Hong Kong. Air pollution in the capital Beijing, nearby Tianjin and surrounding Hebei province is also bad, he said.

But Zhou said there had been improvement in some cities in China, without listing any specific locations.

The China Daily reported at the start of the month that Beijing's air quality was improving as a result of post-Olympics traffic control measures that had seen about 900,000 cars taken off the roads every weekday.

### **55. Shanghai Confident Of Clean Air for World Expo**

The city of Shanghai will not take extreme measures, such as demanding temporary closure of polluting companies in Shanghai and nearby cities, to improve air quality for the sake of 2010 World Expo, city officials said. In an interview, the city's Party chief Yu Zhengsheng ruled out the possibility of shutting down polluting enterprises, a practice adopted by Beijing during last year's Olympics and possibly by Guangzhou for the 2010 Asian Games. "Shanghai's air quality is better than most of the cities in the northern part of China," Yu said. "Shanghai World Expo will take a comprehensive evaluation of economic growth, people's life and (Expo's) security issues."

He also said that it will be too costly to shut down companies, which might impose a negative impact on employment and government's revenue. "The short-term improvement of environment index will not tackle the problems, let alone the fact that the Expo will last six to seven months. We won't take such measures," he added.

Yet the city will take more fundamental steps to improve environment, the official disclosed. For instance the city will require old public transport vehicles replaced with lower emissions ones and Shanghai will conduct experimental tests at a few power plants to reduce dust they discharge.

He also talked about a measure that might have an impact on hundreds of thousands of private car owners, but declined to elaborate before the government approves it. One rumor is that Shanghai is considering a plan to offer consumers a cash incentive to scrap their old cars and buy new ones with higher emission standards.

Beijing plans to invest about 1 billion Yuan to scrap heavily polluting vehicles this year, and car owners could get a cash handout between 500 and 25,000 Yuan.

Shanghai has fewer vehicles than Beijing, thanks in part to charging tens of thousands of Yuan for auctioning a license plate. Local media report that Shanghai had 720,000 private cars at the end of 2008, compared to 2.48 million private cars in Beijing.

For most of the time in recent years, Shanghai has had a level-two air quality, Shanghai Vice-Mayor Yang Xiong told reporters. The level-two air quality, according to China's standard, is only next to the level-one quality required at natural reserves and famous natural sightseeing areas. It is also a goal aspired by many polluting cities in the country.

What's more, Shanghai won't put restrictions on cars from other provinces during the 2010 event, Shanghai World Expo Coordination Bureau chief Hong Hao said. But the city will not allow private cars, even taxi cabs, to drive near the 5.28-sq-m Expo garden, because of possible traffic jams. Visitors could have a transfer at designated areas for subways or buses to the garden, he said.

As China's economic and financial hub, the city has launched several rounds of "three-year action plans" since 2002, when it won the bidding of 2010 Expo, to improve its environment. In the last six years, Shanghai has invested an average of three percent of its GDP on environment improvement every year. The total input has surpassed 140 billion Yuan, more than 50 percent from government investment.

### **56. Beijing Car Restrictions to Continue**

Driving restrictions will continue in Beijing for another year, with small changes to make it easier on residents, Wang Zhaorong, spokesman for the municipal committee of communications, told a press conference. Cars with number plates ending in 0 or 5 will be taken off roads on Monday, while those ending in 1 or 6 will be banned on Tuesday, 2 or 7 on Wednesday, 3 or 8 on Thursday and 4 or 9 on Friday. The ban does not apply on weekends or holidays.

According to the new rules, private cars will be banned within, but not on, the Fifth Ring Road from 7 am to 8 pm. Previously, they were also banned from driving on the Fifth Ring Road from 6 am to 9 pm.

The committee estimated the new rules will take 930,000 of the city's 3.6 million vehicles off the road each weekday and increase driving speed by 10 percent, Wang said. In the previous trial, speed increased by 14.7 percent on average.

The banned driving dates will rotate every 13 weeks. The ban expires on April 10, 2010.

Wang said government and corporate vehicles will continue to be banned around the clock based on plate numbers, but it does not apply to emergency vehicles, mass transit vehicles or public service vehicles.

Previously, such high-emission vehicles were only banned within the Second Ring Road.

### **57. Chinese Province to Begin Monitoring Volatile Organic Compound Levels in May**

The Chinese province of Guangdong will begin monitoring atmospheric levels of volatile organic compounds on May 1<sup>st</sup> as part of an effort to reduce air pollution in the region, the Guangdong Environmental Protection Bureau announced on its website.

Guangdong is China's most populous province, with close to 95 million people; its most prosperous in terms of gross domestic product, an estimated \$522 billion in 2008; and the country's main export and manufacturing center.

Pollutants currently monitored are respirable suspended particulate matter 10 microns or less in size (PM-10), sulfur dioxide, nitrogen dioxide, and ozone.

The monitoring is related to an agreement between Guangdong province and the neighboring Hong Kong Special Administrative Region that established the Pearl River Delta Regional Air Quality Monitoring Network in 2005.

The agreement stipulated a reduction in regional emissions of PM-10, sulfur dioxide, nitrogen dioxide, and volatile organic compounds to 1997 levels by 2010, according to the Hong Kong Environmental Protection Department. PM-10 is to be reduced by 55 percent, sulfur dioxide by 40 percent, nitrogen dioxide by 20 percent, and volatile organic compounds by 55 percent. Ozone is not included.

Hong Kong is expected to meet most of those targets, but Guangdong will have to introduce more controls to meet them, especially for sulfur dioxide, Hong Kong's environmental agency said in a report in late 2008.

Air Quality Objectives are currently being reviewed both in Hong Kong and Guangdong, and the regional plan for air quality monitoring is expected to be revised with new targets in 2010.

Guangdong is now drafting its 12th Five-Year Plan and is expected to include emissions targets as part of the document's energy and environmental components.

Carbon dioxide emissions targets are unlikely to be included in the Guangdong portion of the regional air quality plan, analysts said. Any such targets will likely depend on what China agrees to as part of a global emissions reduction scheme that could come out of the U.N. climate summit in Copenhagen in December.

### **58. Nissan, Renault to Provide China with Electric Cars**

Japan's Nissan Motor Co and France's Renault have announced that they will supply electric cars to China, the world's largest auto market. The Franco-Japanese alliance will provide the Chinese government with a comprehensive plan for marketing and for a battery-charging network, with the aim of selling electric vehicles in China in early 2011.

Earlier this year, Beijing kicked off a pilot program to promote clean energy vehicles in the public transport sector in 13 cities, underlining government efforts to address issues such as environmental pollution and energy security.

Wuhan, the capital city of central Hubei province, has been selected as the first city under a memorandum of understanding signed by Nissan and the Ministry of Industry and Information Technology of China.

Two Chinese automakers have also sought to tap potential demand for clean energy cars. BYD Auto, a subsidiary of rechargeable battery maker BYD Co., launched its plug-in hybrid car F3DM in China late last year. And Chery Automobile rolled out its first self-developed electric car, the S18, in February.

Nissan said in February it aimed to expand its Chinese vehicle sales by 4.6 percent in 2009 in a market that has become one of the few bright spots for the embattled industry. The firm is

expecting to sell 570,000 cars and light commercial vehicles this year in China, which accounted for about 15 percent of its global sales last year.

Vehicle sales in China, which surpassed the United States in January to become the world's largest car market, climbed to a record in March, extending gains from the previous month, helped by government incentives to bolster demand in both urban and rural areas, official data show.

### **59. Japan Mulls Subsidies on Green Car Sales**

The Japanese government may start offering subsidies of up to 300,000 yen (US\$3,000) on hybrid cars and other environmentally friendly vehicles to cut greenhouse gas emissions and boost sagging auto sales at the same time, according to the financial daily Nikkei. Besides hybrids and electric vehicles, Nikkei said gasoline and diesel-powered cars meeting stringent emission standards would also qualify for subsidies.

A buyer of a mini-car meeting the program's standards would get 100,000 yen and a buyer of a larger qualifying vehicle would receive 200,000 yen. A buyer moving to a new green car from a vehicle at least 13 years old would get an additional 100,000 yen.

"The government is looking to introduce the new subsidies before summer and keep them until the end of fiscal 2009," Nikkei said.

The paper said that, along with tax breaks that already went into effect, the subsidies are expected to raise sales of new vehicles by one million per year.

### **60. Hong Kong Gives Boost to Clean Vehicles**

The Hong Kong Special Administrative Region will spend 112 million Hong Kong dollars (\$14.5 million) this fiscal year to replace 6 percent of the public vehicle fleet with less-polluting models, the Government Logistics Department has reported on its website. All 401 vehicles purchased must comply with Hong Kong emissions standards. Of those, 160 cars and three buses will meet the Environmental Protection Department's standards for "clean" vehicles. The government of Hong Kong has already placed orders for 230 environmentally friendly vehicles to be added to the fleet over the next two years. Also, according to the government's budget, the tax exemption for first-time registrants of electric vehicles will be extended to March 2014 as part of the Administrative Region's effort to promote clean vehicles.

### **61. Tougher Standards Needed To Control Growing Air Pollution in Vietnam**

The rapid increase in the number of cars and motorbikes in HCM City has led to congestion and serious pollution. The city is planning to introduce more stringent emissions standards to improve air quality. The city must set strict air quality standards to combat the increasing amount of pollution caused by cars and motorbikes, according to speakers at a conference in HCM City.

The rapid increase of cars and motorbikes in HCM City had had an adverse impact on the urban environment, said Prof Pham Ngoc Dang, chairman of the Scientific Technological Board of the Institute of Environmental Science and Engineering. Cars and motorbikes contributed to 70 per

cent of air pollution in urban areas, in addition to industrial production, construction and other activities, he added.

Reports from the conference, which discussed the management of air quality standards, revealed that some pollutant levels had improved slightly this year. Compared to 2007, data from HCM City observation stations showed a reduction in carbon monoxide, sulfur dioxide, ozone and lead. The air quality index along streets and residential areas was better than that of 2007 and there were more days with good air quality as well.

However, particulate matter and exhaust fumes from motorbikes and vehicles was at unacceptable levels. The average content of particulate matter in 2008 was 1.5 times higher than that of 2007.

According to the Viet Nam Register, by the end of 2008, Viet Nam had more than 24 million motorbikes, four times higher than that of 2001. More than four million motorbikes are registered in HCM City.

Dust from construction sites in the city has also greatly contributed to poorer air quality.

Professor Dang suggested several solutions, including tightening standards, reducing the amount of exhaust from vehicles and motorbikes, getting rid of sources of pollution at factories, and installing an air quality monitoring system. Dang said most cars in Viet Nam, except for some new smaller models, had not met the EURO 2 standard on pollution.

## **62. Air Quality Standards Changes Under Review in New Zealand**

The Government plans to review air quality standards but Nelson city should keep pushing for conversion to clean home heating, says Environment Minister and Nelson MP Nick Smith. The review is aimed at making the standards more workable for places such as Nelson, he said.

Several problems had been raised about the national air quality standard, particularly its enforcement. The standard, introduced in 2006, requires a progressive reduction in air pollution by 2013. If there was a breach in the number of exceedances allowed, a resource consent holder may not have its consent renewed. Dr Smith said that meant an industry, which may have reduced its pollution, could be unfairly penalized, losing its consent and having to shut down.

He gave the example of Nelson and Richmond, where 90 per cent of air pollution was caused by household fires. If the area did not make progress in reducing its air pollution, it could end up punishing industry which accounted for less than 10 per cent of the pollution. For example, a major industry such as Nelson Pine Industries that produced less than 1 per cent could end up having its consent declined, he said.

Dr Smith said he had not finalized the terms of reference for the review, which would not start until the new financial year.

It has been reported the Government was considering delaying the date for meeting the standards from 2013 to 2020. Dr Smith said that was only one option up for consideration and the number of allowable exceedances per year would also be examined.

At the same time the Government was developing an assistance package for clean home heating because in most parts of New Zealand air pollution was caused by home fires.

In Auckland, 50 per cent of breaches were caused by motor vehicle emissions so it needed to look at exhaust systems.

In Nelson city, the use of old enclosed burners will be banned in many areas from the end of this year. In Richmond, after a house is sold an existing non-compliant wood burner cannot be used, and new houses are not allowed to have wood burners.

Nelson City Council senior policy planner David Jackson said some problems had arisen with the standards because some regions like Hawke's Bay had started late so were struggling to meet the 2013 deadline. But he said Nelson had started early and was on track. He did not want Nelson to lose that momentum: "If you move the goalposts then everybody relaxes and the incentive goes away."

The council will discuss the issue when it meets with Dr Smith next month.

Tasman District Council environment and planning Chairman Michael Higgins said he would welcome a review of the standards. He was not concerned about the standards, but thought the time-frame to meet them was too tight. "It's very hard on businesses and home owners in the Tasman district." Mr. Higgins said the council had adopted the approach of encouraging home owners to get rid of non-complying wood burners when they sell their houses, but there was no guarantee the council could meet the standards by 2013.

Green Party Nelson spokeswoman Diana Mellor said the National Party seemed to be keen on weakening environmental standards such as the Resource Management Act and other rules for which the Green Party and others had fought hard.

### **63. Regulations to Control Vehicle Emissions in Sri Lanka Being Eased In**

The Ministry of Environment and Natural Resources has held a press briefing to announce the new developments and improvements with regard to the reduction of harmful emissions from vehicles in the country. Speaking at the press briefing Minister of Environment and Natural Resources Patali Champika Ranawaka said the new regulations provided for vehicles manufactured before 1975 did not have to be issued an environmental license before renewing a vehicle license.

Further brand new vehicles would be given a three-year-grace period where the vehicle did not have to pass the emissions test. The Minister said that in an attempt to minimize the inconvenience to the public a grace period of one month would be allowed prior to the date the license would be renewed to obtain the license. Also those using forged or false certificates would be fined.

The Minister also reiterated the fact that the testing program was not given to the two private companies Clean Co. Pvt. Ltd. or Laughs Lanka Pvt. Ltd. for any political advantages or to further the companies own profits. With this regard any company using defective equipment or carrying out the process in a faulty manner would be fined and followed by the cancellation of



their license to operate the testing centre. The Ministry issued a series of telephone numbers for the public to contact if such discrepancies occurred.

The Minister said that the action taken by the Ministry with regard to controlling vehicle emissions were neither intended to inconvenience the public nor were they for the profit of the organizations carrying out the testing. Instead, these measures were being taken to ensure that our children would be free from sickness and we could all breathe clean air.

#### **64. Dhaka's Pollution Causing Premature Deaths Say Health Experts**

Thousands of people in Bangladesh's capital, Dhaka, are dying prematurely because of air pollution, health experts have said. An estimated 15,000 premature deaths, as well as several million cases of pulmonary, respiratory and neurological illness, are attributed to poor air quality in Dhaka, according to the Air Quality Management Project, funded by the government and the World Bank.

The World Health Organization said vehicular air pollution is a major cause of respiratory distress in urban Bangladesh.

According to the Chest Diseases National Institute and Hospital, nearly 7 million people in Bangladesh suffer from asthma; more than half of them children. Cases of children suffering from bronchitis and chronic coughs have also shot up in recent years, it said.

According to the DoE, the density of airborne particulate matter (PM) can reach up to 463 micrograms per cubic meter (mcm) in the city during the dry season from December to March, the highest level in the world. WHO air quality guidelines recommend a maximum acceptable particulate matter level of 20 mcm; cities with 70 mcm are considered highly polluted.

The phasing out of petrol-driven two-stroke auto-rickshaws in 2003 and their replacement with four-stroke versions, which use the much cleaner compressed natural gas, significantly decreased the volume of air contaminants. But, according to DoE sources, a sharp increase in the number of vehicles and construction sites from 2004 to 2008 led to a deterioration in Dhaka's air quality.

The density of airborne fine particulate matter 2.5 micrometers (one millionth of a meter) or smaller in diameter (PM<sub>2.5</sub>) in the city dropped from 266 mcm in 2003 to 147 mcm in 2004. However, Air Quality Management Project statistics from 2007 show 191.83 mcm of PM<sub>2.5</sub> in Dhaka's air.

According to the DoE, old, poorly serviced vehicles, brick kilns (there are currently about 1,000 in and around Dhaka), dust from roads and construction sites and toxic fumes from industrial sites are major sources of air pollution.

The Bangladesh Road Transport Authority said some 15,000 mostly reconditioned and second-hand cars were sold in Dhaka in 2008 — up 46 percent from 2007. "Even people in the middle income bracket [\$450-800 per month] can afford cars now," said Abdul Haq, owner of Haq's Bay, a leading car seller.

Environmental activists are encouraged by the creation of the government's Clean Air and Sustainable Environment project in Bangladesh, funded by the World Bank and expected to start from July 1, 2009. The aim is to adopt sustainable environmental initiatives in key polluting sectors.

### **65. Indian Automakers Upgrading Fleets to Meet Emission Standards for 2010**

Indian automobile manufacturers and oil companies are preparing to meet new emissions requirements by April 1, 2010, when the Bharat Stage IV standards for vehicles come into force in 11 of the country's major cities. Bharat Stage IV is modeled on the European Union's Euro IV emissions standard and will apply to heavy-duty vehicles like buses and trucks as well as light-duty trucks and cars. Sulfur will be limited to 50 parts per million (ppm) in both diesel and petrol fuel, while aromatic hydrocarbons will be limited to 35 percent of fuel content.

Current Bharat Stage III standards call for a limit of 350 ppm sulfur and 42 percent aromatic hydrocarbons. The Bharat Stage III standards will still apply to the rest of the country, outside the National Capital Region of Delhi, Mumbai, Kolkata, Chennai, Bangalore, Hyderabad, Ahmedabad, Pune, Surat, Kanpur, and Agra.

The new norms were finalized in February 2009, giving the \$14.4 billion Indian automobile industry a little more than one year to overhaul its products.

To meet the new standards, automakers are introducing new engines, while oil companies are making arrangements to produce and to supply higher grades of fuel. Investment of an estimated Rs 55,000 crore (\$11.1 billion) by automakers and oil companies will be needed to meet the stringent specifications.

Maruti Suzuki, which sells every second car in India, has announced that the Maruti 800 and Maruti Omni will be phased out of the 11 cities because they meet only Bharat Stage III norms. The company's K12M series engine, which is Euro IV and Euro V compliant, will be fitted into all its vehicles produced over the next five years, including newer cars like the SX4, Swift, A-Star, and DZire.

Hindustan Motors' popular Ambassador model also does not meet the Bharat Stage IV standards.

Hyundai has launched an upgrade of its i10, the i20, which is Bharat IV compliant. Mahindra has come up with a new version of its SUV Scorpio with a new 2.2L mHawk diesel engine, which makes it Bharat IV compliant.

Among heavy-vehicle manufacturers, Ashok Leyland, the market leader in buses, has developed hythane engines in association with Australia's Eden Energy. These six-cylinder, 6-litre engines run on a mix of compressed natural gas and hydrogen (usually 20 percent hydrogen by volume) and are compliant with Bharat Stage IV. The company can begin marketing these as soon as the fuel becomes widely available. Right now, India has only two hythane stations, both in Delhi.

All new and upgraded refineries around the country, including the private sector Reliance and Essar refineries in the western Indian state of Gujarat, have the technology to produce higher

grades of fuel. However, plans to upgrade existing refineries have been delayed by equipment shortages because of competition from refinery building and expansion in other Asian countries.

India's state-run refiners have committed over Rs 30,000 crore (\$6 billion) to upgrade their refineries to enhance production to keep up with spiraling demand and to meet Euro IV norms. Of these, only the Indian Oil Corp. says it will be able to complete all upgrades at its seven refineries before the deadline of April 2010.

#### **66. Japan Works to Develop Next-Generation Batteries**

The Japanese government is recruiting businesses, universities, and research institutes to partner with it in an effort to develop next-generation batteries for electric vehicles. The 2009–2015 development project, to be budgeted at 21 billion yen (\$214 million), will be spearheaded by the Ministry of Economy, Trade, and Industry's technology subsidiary, the New Energy and Industrial Technology Development Organization, NEDO officials said on April 17<sup>th</sup>. The project aims to develop batteries that can power an electric vehicle 50 percent to 100 percent farther than existing batteries while slashing manufacturing costs. The project plans to develop safer, lighter, larger-capacity lithium-ion batteries; to test other materials for batteries; and to research the potential for instant charging of batteries, officials said. One official said next-generation batteries also could be installed on gas-motor hybrids to extend their driving range. By 2015, NEDO hopes to extend electric vehicles' range by 50 percent with lithium-ion batteries while lowering the price to one-sixth the current level, the officials said. By around 2030, they hope to stretch the driving range to 400 to 600 kilometers (about 250 to 375 miles) per charge with lithium-ion, sulfur, and other types of batteries, officials said. NEDO will formally announce project details and participants in May, officials said.

#### **67. Singapore Launches Drive to Cut Pollution, Boost Energy Efficiency**

Singapore's government has unveiled a \$1 billion Singapore (\$668 million) environmental plan aimed at creating a greener, more sustainable nation, environment ministry officials said April 28<sup>th</sup>. To be implemented over the next five years, the Sustainable Development Blueprint aims to improve energy efficiency, reduce air pollution, and expand the nation's green spaces, according to the Inter-Ministerial Committee on Sustainable Development, which was created 15 months ago to oversee the plan.

The panel said that, if successful, the program will change the island nation's city and landscapes and transform the way Singaporeans live and run their businesses. On a more pragmatic note, the government expects the scheme to create 18,000 jobs and add US\$2.26 billion to the nation's gross domestic product by 2015. Roughly 11,000 of the new jobs are expected to come from environmental and water technologies.

"We are not looking at headline-grabbing numbers ... we are looking at something that is doable in the Singapore context, that is practical, that will give us results," Minister for National Development Mah Bow Tan told reporters.

The blueprint allocates US\$453 million for research and development and manpower training in various areas of the clean technology sector. This is in addition to US\$666 million set aside in the city-state's annual budget in January for sustainable development.

A 55-hectare (136-acre) "cleantech" park is to be established near the Nanyang Technological University near central Singapore by 2011 and completed over 20 years. The park aims to set standards for carbon emissions, energy use, and water and waste management.

The government also aims to attract more companies like Norway's Renewable Energy Corp., which is investing US\$4.2 billion in a solar cell plant in the northwest of the island at Tuas, according to trade and industry minister S. Iswaran.

The plan also mandates that 80 percent of all buildings comply with the country's "green mark" certification by 2030, meaning that the building must conserve and recycle resources like water and electricity. The government will contribute funds to help "green" existing buildings through installing solar panels and reducing energy usage in common areas.

In terms of air pollution, the plan aims to reduce ambient PM-2.5 (particulate matter) levels from 16 micrograms per cubic meter to 12 by 2020 through boosting the use of public transport, trials of diesel hybrid buses, testing of electric vehicles, studying the use of filters for diesel particles, and encouraging cycling with a \$43 million network of bike paths and bike parks in five towns.

The plan also calls for an additional 900 hectares (2,223 acres) of parkland in the next 10 years, boosting Singapore's existing parkland to 4,200 hectares, or about 6 percent of the nation's land area. By 2030, the city-state aims to have 0.8 hectares of parkland for every 1,000 people.

Green projects will also reach for the sky with another 50 hectares of skyscraper greenery planned by 2030, including the 9 hectares of green roof projects currently being developed on top of multistory parking garages in residential areas within the next three years.

Waterways will also be expanded from the current 645 hectares of reservoirs and 66.9 kilometers of waterways for public use to 900 hectares and 100 kilometers, respectively.

## **68. Hyundai To Go Ahead With Eco Cars**

Hyundai Motor Group, the world's No. 5 automaker, will go ahead with plans to develop environment-friendly cars despite the segment's low profitability and an industry downturn, according to a senior executive. Yang Woong-chul, president of the group's auto research & development division, also said the group saw almost "no problem" to its business from the won currency's recovery trend. A weaker won has helped Hyundai and other South Korean automakers by enhancing price competitiveness and boosting profits from overseas markets.

The group usually allocates 5 percent of sales for R&D and spends 20-30 percent of that budget on environment-friendly models such as hybrid cars, said Yang, who is in charge of auto technology for South Korea's top two car makers -- Hyundai Motor Co and Kia Motors Corp.

Hyundai plans to start mass production of hybrid cars next year and to begin mass production of plug-in hybrids from late 2012.

Hyundai has unveiled the Elantra LPI, a hybrid version of the popular compact car, which will be powered by liquid petroleum gas (LPG) and lithium polymer batteries. South Korea's LG Chem, which is set to supply battery packs to the GM Volt, will be the sole provider of batteries for the Hyundai hybrid.

The recent rise in the won is unlikely to pose any threat to the group as it has not made plans based on the currency's weakness, Yang said. The South Korean currency had risen about 16 percent since March 6, when it hit an 11-year low, and is seen recovering further as worries about the global financial crisis ease.

### **69. Future Mazda Models To Get Diesel Engines and Weigh 10% Less**

Mazda recently unveiled a diesel version of its CX-7 SUV at the Geneva Auto Show and the company has announced it is looking to expand its diesel offerings with new smaller engines aimed at hybrid competitors. Mazda's head of research and development has announced that the automaker will tread a different path than its Japanese counterparts, looking to a future in diesel cars rather than hybrid ones.

Engineers at the company are currently working on a 2.0-liter diesel engine that would be as fuel-efficient as a 660cc gasoline engine or a similarly powerful hybrid car. The added bonus is that it would be significantly cheaper to produce and that cost savings would be passed on to consumers - who currently pay a premium for hybrid models.

One major reason for the cost savings is a new single-nanotechnology catalyst Mazda is working on, which requires significantly less precious metals in its construction. Another cost-savings measure is a new diesel particulate filter that would eliminate the need for costly exhaust treatment systems.

Mazda intends to bring such a diesel engine to market by 2011, although it is not clear if the engine would be in a new model and if that model would be available worldwide.

In addition, Mazda plans to increase the fuel-economy of its fleet by 30% by 2015.

At the Geneva Auto Show earlier this month Mazda took the wraps off a turbo-diesel CX-7. Using a 2.2-liter powerplant, this new engine produces 171hp at 3500 rpm and 295 ft-lbs of torque at 2000 rpm. It also gets a combined fuel economy rating of 31.4 mpg.

Future Mazda plans to increase fuel-economy also include advancements in automatic transmission technology (like the company's new Start/Stop system) and an overall reduction in vehicle weight. Kanai said that models released in 2011 or after will weigh roughly 220 lbs less than current models, with a further similar reduction in weight happening in 2016.

### **70. Nissan To Expand Green Cars For New Japan Credits**

Nissan has announced that it has improved fuel economy on seven models sold in Japan to benefit from new tax incentives that are part of the government's efforts to jump-start car demand. Japan's No.3 automaker said its line-up of fuel-efficient vehicles eligible for the tax breaks would expand to 13 from six starting in late April, in a move that it hoped would help its domestic sales grow in the new business year starting April 1<sup>st</sup>.

Toyota Motor Corp and Honda Motor Co have 28 and nine models, respectively, that qualify for the varying degrees of preferential tax treatment.

The Japan Automobile Manufacturers Association has said the new measures should add about 310,000 vehicles in sales in the 2009/10 fiscal year, when it expects domestic sales to fall 8 percent to 4,297,600 units -- a 32-year low.

Nissan Chief Operating Officer Toshiyuki Shiga said he was hopeful the incentives would nudge Japanese consumers toward purchasing a car. He added that he expected global production at Nissan to be about 10 percent higher in April-September compared with the second half of the last business year.

Nissan lags Toyota and Honda in the gasoline-electric hybrid segment, which it plans to enter in 2010. Instead, it said it had made incremental improvements in about 50 different areas and components of conventional internal combustion engines to achieve greater fuel economy at low cost.

Nissan said it had the highest ratio of cars eligible for a 75 percent tax reduction on fuel-economy standards in Japan. It is scheduled to begin mass-marketing pure-electric cars globally in 2012.

### **71. Guangzhou on Track to Convert Taxis, Buses to LPG**

Guangzhou, the capital of Guangdong Province on China's southern coast, is on track to meet its goal to convert all taxis and buses to use liquefied petroleum gas (LPG) before the city hosts the Sixteenth Asian Games in November 2010. Nearly 100 percent of taxis and about 85 percent of buses in the city are using LPG. But some in the city are calling for more action to reduce smog in the city, including those pushing for buses and taxis to be converted to use liquefied natural gas (LNG) and others who want hybrid vehicles to be adopted. On February 26<sup>th</sup>, more than 20 Guangzhou members of the Chinese People's Political Consultative Conference suggested that the city turn to hybrid vehicles, according to the Guangzhou Daily. The group said that emissions from buses using LPG are 198 times higher than emissions from hybrid buses. An estimated 46 percent of Guangzhou's air pollution comes from auto exhaust.

### **72. Sinopec Profit Expected to Surge on Fuel Prices**

China Petroleum & Chemical Corp., Asia's biggest refiner, posted 2008 profit that beat estimates and said first-quarter earnings will surge more than 50 percent after fuel-price controls were relaxed and oil costs fell.

Net income fell 47 percent to 29.8 billion Yuan (\$4.36 billion) last year, the Beijing-based company, known as Sinopec, said in a statement in Hong Kong. The median estimate of 21 analysts was for a profit of 25 billion Yuan. Sales rose 21 percent to 1.42 trillion Yuan.

Profit is set to rise after the government assured refiners a profit and crude oil futures in New York slumped 64 percent from a July record. The new mechanism for setting gasoline and diesel prices will end "years of losses" at refineries, Sinopec, supplier of 80 percent of China's fuel, announced. The government in December replaced a guidance band for retail fuel prices with a market-based ceiling that includes the cost of crude oil, taxes and an "appropriate profit" for refiners. Gasoline and diesel prices will be adjusted when crude costs change by more than 4 percent over 22 straight working days, and refiners will be allowed a profit margin of at least 5 percent, said Zhou Jiping, president of rival PetroChina Co.

Profit for the three months ended Dec. 31 soared 98 percent to 13.3 billion Yuan, the biggest quarterly increase since 2007, according to Bloomberg calculations made by subtracting earnings for the first nine months from full-year figures just released. Profit in 2009 may surge to 46.4 billion Yuan, according to the median estimate of 24 analysts.

Sinopec shares have gained 13 percent in Hong Kong trading after China raised fuel prices by as much as 5 percent starting March 25. The stock closed at HK\$4.98 on March 27.

“Sinopec will be able to make full use of its advantages in marketing and management, turning its refining operations into a major profit contributor,” Sinopec said in its earnings announcement.

Sinopec said capital expenditure will rise 4 percent to 111.8 billion Yuan this year. Spending on refining will increase about 35 percent to 16.8 billion Yuan while that on exploration will decline by 4.6 percent to 55 billion Yuan, it said.

Sinopec will gain more from the relaxation than PetroChina or Cnooc Ltd., which draw most of their revenue from oil production. PetroChina, the world’s second-largest company by market value, said last week 2009 may be its “most challenging” year after refining losses and a slump in crude oil prices led to its first annual profit drop since 2001.

About 76 percent of Sinopec’s revenue comes from refining and marketing and distributing petroleum products, according to the company’s 2007 annual report. Only two percent is from oil exploration and production.

Operating losses from refining surged to 102 billion Yuan last year from 13.7 billion Yuan in 2007, Sinopec said. The company received 50 billion Yuan in government subsidies.

Sinopec’s windfall tax payment increased by 21.6 billion Yuan, it said without giving a figure for the year. Chinese oil producers pay a tax on revenue from crude sold above \$40 a barrel under a levy introduced in March 2006.

Eighteen out of 24 analysts in a Bloomberg survey recommend buying Sinopec shares, compared with 11 for Cnooc, China’s third-largest oil company. Ten out of 23 rate shares of larger PetroChina a “buy.”

The refiner’s unlisted parent, China Petrochemical Corp., said on March 23 its first-quarter performance is “better than expected” and the country’s demand for some oil products is recovering.

Oil processing at Sinopec’s refineries may increase 8.9 percent to 184 million tons this year, the company said. Sinopec plans to boost crude oil output by 1.4 percent to 42.4 million tons and natural gas production by about 20 percent to 10 billion cubic meters.

### **73. NSW Government Fails To Meet Air Pollution Targets**

The Greens have attacked the NSW Government claiming they’ve dropped the ball on the State’s public transport system and air quality levels. The criticism comes after the leaked, 2009

Action for air report, revealed the NSW Government had failed to reach its own air quality targets for smog and particle pollution. It also said Sydney exceeds the national standard for ground level ozone – an air pollutant that exacerbates respiratory illness like asthma.

Drafted by the NSW Department of Environment and Climate Change, the report linked the State Government's failed targets on an inadequate public transport system, a heavy focus on road-intensive transport initiatives, and poor urban planning management. These three factors were said to be contributing reasons behind commuters' continual reliance on private cars, still the biggest source of air pollution.

#### **74. Hong Kong Reviews Air Quality Measures; Mainland Complicates Task**

A consulting group has advised the government of the Hong Kong Special Administrative Region to adopt minimum World Health Organization (WHO) air quality targets; although some legislators and environmental groups say the goals may be too stringent. The London-based consultant Ove Arup was commissioned by the government in June 2007 to measure the six major air pollutants of sulfur dioxide, breathable suspended particles (PM-10), nitrogen dioxide, ozone, carbon monoxide, and lead, and to update Air Quality Objectives (AQOs) that have been in place since 1987.

Ove Arup recommended that Hong Kong adopt WHO's phase 1 interim goals (IT-1) for sulfur dioxide and ozone, and for fine suspended particles (PM-2.5.) Hong Kong has not previously included PM-2.5 in its air quality measurements. The consultant also urged adoption of stricter phase 2 interim goals (IT-2) for breathable suspended particles (PM-10). The report said the WHO targets are a "long-term aspirational goal while progressive steps are taken to tighten the existing legal AQOs."

At a public meeting on March 20<sup>th</sup>, legislators called on the Hong Kong government to provide more data and to elaborate on how it would implement proposals in the review. The government has been asked to report back at the next meeting of the Subcommittee on Improving Air Quality of the Legislative Council on April 16.

A final report from the consultant is due in the second half of the year, to be followed by a "full scale public consultation" on the proposals, according to a government white paper issued on March 19<sup>th</sup>.

In order to meet WHO air quality standards, the consultant report recommended the adoption of 19 measures including:

- accelerating the replacement of heavily polluting public vehicles, including commercial diesel vehicles and franchised buses rated using EU emissions standards as pre-Euro, Euro I, and Euro II;
- earlier adoption of Euro III emissions standards for commercial diesel vehicles;
- promoting the use of more environmentally friendly vehicles;
- tightening vehicle emissions controls;
- introducing low-emission zones by banning pre-Euro and Euro I, Euro II, and Euro III commercial vehicles from certain high-traffic areas;
- expanding public rail systems and cycling networks; and



- promoting energy efficiency through mandatory building energy codes, energy-efficient appliances, and use of light-emitting diodes (LEDs) for street lighting

The report estimated the cost of implementing these measures at HK\$28.5 billion (\$3.7 billion).

One problem Hong Kong faces in adopting even the weakest of the WHO air quality guidelines relates to the pollution that crosses from neighboring Guangdong province in mainland China. In its report, Ove Arup said both Guangdong and Hong Kong would have to take “radical measures” in order for Hong Kong to adopt tighter WHO AQOs.

Australia's consulate in Hong Kong recently issued a travel alert to its citizens about air pollution in the area, warning citizens with “bronchial, sinus or asthma conditions” or those with “heart or respiratory illness” to reduce activities outdoors on days of high pollution.

### **75. China to Add Ozone, Fine Particulates To Its Air Pollution Index Measurements**

China's air pollution evaluation system is outdated, Vice Minister of Environmental Protection Zhang Lijun acknowledged at a press conference on March 12<sup>th</sup>. The existing air pollution index (API) measures sulfur dioxide, nitrogen dioxide, and particulate matter with a diameter of less than 10 microns (PM 10), but does not measure fine particulate matter (PM 2.5) or ground-level ozone. Zhang said the ministry plans to add PM 2.5, ground-level ozone, and visibility indexes to its API system so that “government statistics and public perception can be in harmony.”

The current standards, adopted 10 years ago, do not provide an accurate picture of the smog situation across the country, Zhang said, especially in the Pearl River Delta, Yangtze River Delta, and the Beijing-Tianjin-Hubei province region where ozone and particulates are the heaviest and where the country's major development during the current 11th five-year plan has been focused. Zhang said the ministry is working with governments in regions with the worst smog to craft regional plans to combat air pollution.

“[W]hen the government says the air is good, the public doesn't necessarily see blue skies,” Zhang said. “We often receive phone calls from the public, questioning our air pollution index and wondering why we publish good air quality figures even on smoggy days.”

China's smog in the worst-affected regions is mainly caused by particulate matter, Zhang said, and there's more PM 2.5 in the air because of the rapidly increasing number of cars on the roads. The number of cars in China is expected to grow from 33 million to about 130 million in the next 12 years.

### **76. China Hails U.S. Climate Promises, Says To Act**

Beijing welcomed U.S. promises of more action to slow global warming and said China would also do its share while ensuring that its people were not “left in the dark” without electricity. “We welcome this positive change in attitude and approach by President (Barack) Obama and his team,” China's climate ambassador Yu Qingtai said on the sidelines of 175-nation U.N. climate talks from March 29-April 8 in Bonn.

The Obama administration made its U.N. climate debut at the Bonn meeting, promising to cut U.S. emissions by 16 to 17 percent back to 1990 levels by 2020.

Yu told reporters that developed nations had to lead the way with deep cuts in greenhouse gas emissions to pave the way for a new U.N. climate agreement at a meeting in Copenhagen in December. China and the United States are the top greenhouse gas emitters.

Yu said that Bush policies had "left a lot wanting." Bush rejected the Kyoto Protocol, the U.N. treaty that sets caps on emissions for all other industrialized nations until 2012.

### **77. Pollution Declines On 'Selective' Data**

A new set of data released by Delhi Pollution Control Committee (DPCC) shows a decline in pollution levels in the capital. However, environment agencies say that the numbers are misleading and don't indicate a trend.

Data released by DPCC for December 2007 and January and February this year reveals that levels of suspended particulate matter (SPM) and respirable suspended particulate matter (RSPM) in the Capital have decreased. A comparison of DPCC figures for December 2007 and early this year shows that levels of SPM have fallen in 23 of its 40 stations while RSPM levels have fallen in 34 of its 40 monitoring stations.

However, environmentalists have raised concern about the declining pollution levels, stating that selective data only for a couple of months can't be used to establish a trend. Between January and February 2009, DPCC data shows that levels of SPM and RSPM have gone down in 11 stations each. Ten centers show a declining trend of both SPM and RSPM. For example, Sarita Vihar recorded 544 micrograms/m<sup>3</sup> of SPM in February as against 596 micrograms/m<sup>3</sup> in January and Paschim Vihar recorded 203 micrograms/m<sup>3</sup> of RSPM in February as against 219 micrograms/m<sup>3</sup> in January.

This trend, however, is contrary to the Central Pollution Control Board's data. Officials said that SPM and RSPM had been showing an increasing trend and levels of both were expected to peak in the coming year since the city would be witnessing frantic construction for the Commonwealth Games. "The number of vehicles has also been increasing steadily and SPM and RSPM levels are quite worrying," said a CPCB official.

Anumita Roychowdhury, director of Centre for Science and Environment's Clean Air Campaign, said that the fall between the December and February data was rather obvious since pollution levels normally start building at the end of monsoon and peak in the winter months. "I am glad that the government is making air pollution data accessible to Delhiites but it should be looking at an annual trend to assess pollution levels rather than analyzing just monthly data. Pollution levels change each month based on temperature, rainfall etc and a comparison of figures for December 2007 and February 2009 does not tell us anything about pollution," she said.

## **SOUTH AMERICA**

### **78. Petrobras Starts Producing Low-Sulfur Diesel**

Petrobras has started producing a new type of low-sulfur diesel that could allow Brazil to become self-sufficient in the petroleum derivatives area by 2012, the state-controlled oil giant said. Petrobras has produced the first batch of S50 diesel, which has only 50 parts per million of sulfur, or one-tenth the level in S500 – the most advanced formulation previously being refined.

Low-sulfur fuel, combined with the next generation of diesel engines to be rolled out in the South American country over the next three years, will help reduce pollution-causing emissions by 80 percent, Petrobras's director of downstream operations, Paulo Roberto Costa, said.

The new fuel will allow emissions from existing engines to be reduced by only between 10 percent and 15 percent, the executive said in a press conference at Rio de Janeiro's Duque de Caxias refinery, where the low-sulfur diesel is being produced.

Petrobras plans to start selling the new diesel at all of its service stations in the Belem, Fortaleza and Recife metropolitan areas starting next month, but it will have to import the fuel to meet demand.

The company expects to overhaul three other refineries so they can begin producing S50 next year.

#### **79. Brazil Launches Fuel-Efficiency Ratings for Cars**

Cars bearing a sticker listing fuel consumption per kilometer started rolling off assembly lines in Brazil on April 17<sup>th</sup>. Brazil's National Institute of Metrology, Standards, and Industrial Quality (Inmetro) developed the National Fuel Conservation Sticker, which lists gasoline and ethanol consumption in urban areas and on highways. Five of Brazil's biggest carmakers—Fiat, General Motors, Honda, Kia, and Volkswagen—volunteered to participate in the program, and 31 of their new models—24 of which are subcompacts and compacts—now have the sticker. Ford, Peugeot, and Renault are not participating. Stickers on the subcompact and compact models carry ratings from A (highest) to E (lowest) for fuel efficiency, as calculated by Inmetro. Ratings are not provided for larger models. Inmetro will test the accuracy of the carmaker-provided fuel consumption figures by doing in-house measurements of at least one model from each manufacturer, Inmetro said. Inmetro also will do testing if carmakers in the program claim that the fuel consumption of their competitors' models is inaccurate, and it will fine any carmakers that provide inaccurate figures.

#### **80. Colombia Orders Automakers to Transition To 85 Percent Ethanol Using Cars**

Beginning in 2012, most new automobiles manufactured and sold in Colombia must be able to operate on fuel consisting of 85 percent ethanol and 15 percent gasoline, according to a decree issued March 31<sup>st</sup> by the Ministry of Mines and Energy. Decree 1135 cites environmental sustainability and conservation of Colombia's hydrocarbon reserves as its justifications.

As of January 1<sup>st</sup>, 2012, most gasoline-powered vehicles with engines of up to 2,000 cubic centimeters that are manufactured, assembled, imported, distributed, or sold in Colombia must be capable of using Flex-Fuel (E85) containing 85 percent ethanol. The requirement will be eased in gradually. By January 1, 2012, 60 percent of cars of each automaker's production must be able to use E85: by January 1, 2014, 80 percent; and by January 1, 2016, 100 percent.

Also, by January 1, 2013, all automobiles with engines larger than 2,000 cc must be able to use E85.

Automobiles manufactured before 2012 will be able to continue using the existing 10 percent ethanol mix, the decree states.

The decree excludes some special-use vehicles, such as racing cars and construction, mining, and agricultural vehicles.

Colombian auto manufacturers and importers have objected to the decree, arguing that it will be impossible to provide cars capable of using such high percentages of ethanol.

## **MIDDLE EAST**

### **81. Syria Reduces Diesel Price 20 Percent**

Syria has cut diesel fuel prices by 20 percent as oil rates declined in world markets and neighboring Lebanon and Turkey, the state run news agency SANA reported. SANA said the decision was announced by Prime Minister Naji Otari during a parliament meeting.

The move appears to be aimed at preventing the smuggling diesel fuel from neighboring Lebanon and Turkey where diesel prices dropped recently due to drop in global oil prices. Smugglers have been bringing diesel from Lebanon and Turkey to sell in Syria where prices had been higher.

Diesel fuel is mainly used by middle-class Syrians to heat their homes.

SANA quoted Otari as saying that diesel fuel prices will drop 20 percent to 20 pounds, or about 40 cents a liter from 25 pounds or 50 cents. The Syrian government raised diesel fuel prices in May after oil soared to a record price of more than \$100 a barrel. Syrians were given subsidies to buy some 1,000 liters of subsidized diesel fuel at about 20 cents a liter after prices were raised last year.

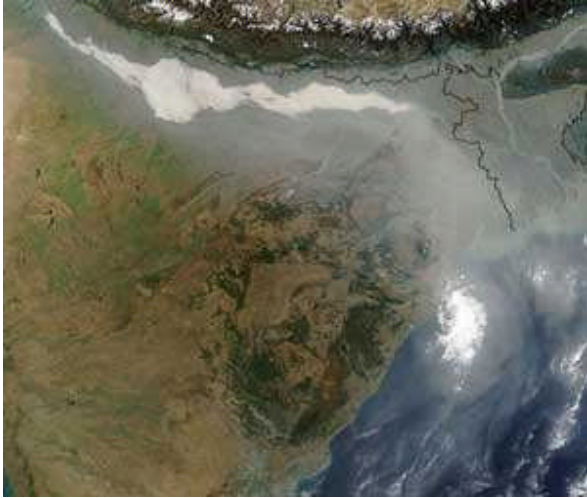
The Syrian government expects 2008 subsidies to cost about \$7 billion or about 19 percent of the gross domestic product.

Syria's oil revenues have fallen in line with the decline in output, from 600,000 barrels per day in the mid 1990s to 350,000 barrels a day.

## **GENERAL**

### **82. Eyes in the Sky Show That Air Pollution Is Much Worse Than Thought**

Particulate air pollution is typically measured at ground level. Unfortunately, many of the world's most polluted areas are in developing countries that cannot afford extensive monitoring. To remedy this, Sundar Christopher, an atmospheric scientist at the University of Alabama at Huntsville, compared satellite data with ground measurements in well-studied areas. Using those comparisons, he devised a way to determine surface air quality using satellite data alone.



“Remote sensing is the only viable way to monitor global particulate matter,” he says. Using NASA’s Terra and Aqua satellites, he and his team examined 20 cities with populations greater than 10 million. In 15 of them, pollution levels were five to ten times higher than the World Health Organization’s guidelines. The researchers are now using satellites to track how pollution moves from one region to another.

### **83. Exposure to Air Pollution May Slow Fetal Growth**

The normal growth of a developing fetus may be slowed if pregnant women are exposed to air pollution, a new study has found.<sup>3</sup> The risk of a small birth-weight baby increased significantly with each increase in particulate matter of 4 micrograms per cubic meter during the first and third trimesters of pregnancy, according to the study.

Each 10 parts per billion increase in nitrogen oxide exposure was also associated with a large increase in the risk of a small birth-weight baby, found the study, conducted by researchers at the School of Public Health, University of Medicine and Dentistry of New Jersey.

The study also found that exposure to particulate matter in later pregnancy was associated with a two-to-five fold increased risk of restricted fetal growth among mothers with separation of the placenta before birth and premature rupture of the membrane, compared with mothers who did not have these complications.

In the study, researchers examined data on nearly 336,000 births in New Jersey between 1999 and 2003 and at daily air pollution readings from across the state. Readings from monitoring sites within six miles (9.6 kilometers) of the mothers' homes were used to calculate average levels of air pollution during their pregnancies.

The findings suggest that traffic pollution or living close to a major road could be linked to restricted fetal growth, said David Rich and colleagues from the department of epidemiology at the school.

It's not clear exactly how air pollution affects fetal growth, the researchers said. They noted that previous research found that air pollution might alter cell activity or reduce the amount of oxygen and nutrients received by a fetus.

Mothers who were younger, less well educated, African-American, smokers, poorer and single parents were more likely to have babies with small or very small birth weights, the study found. But even after accounting for these factors, air pollution was found to restrict fetal growth.

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<sup>3</sup> The study was published online in the April issue of the Journal of Epidemiology and Community Health.

#### **84. Health Risks of Shipping Pollution Have Been 'Underestimated'**

Britain and other European governments have been accused of underestimating the health risks from shipping pollution following research which shows that one giant container ship can emit almost the same amount of cancer and asthma-causing chemicals as 50m cars. Just 15 of the world's biggest ships may now emit as much sulfur pollution as all the world's 760m cars. Low-grade ship bunker fuel (or fuel oil) has up to 2,000 times the sulfur content of diesel fuel used in US and European automobiles.

Pressure is mounting on the UN's International Maritime Organization and the EU to tighten laws governing ship emissions following the decision by the US government to impose a strict 230-mile buffer zone along the entire US coast. The setting up of a low emission shipping zone follows US research which showed that pollution from the world's 90,000 cargo ships leads to 60,000 deaths a year in the US alone and costs up to \$330bn per year in health costs from lung and heart diseases. The US Environmental Protection Agency estimates the buffer zone, which could be in place by next year, will save more than 8,000 lives a year with new standards cutting sulfur in fuel by 98%, particulate matter by 85% and nitrogen oxide emissions by 80%.

The new study by the Danish government's environmental agency adds to this picture. It suggests that shipping emissions cost the Danish health service almost £5bn a year, mainly treating cancers and heart problems. A previous study estimated that 1,000 Danish people die prematurely each year because of shipping pollution. No comprehensive research has been carried out on the effects on UK coastal communities, but the number of deaths is expected to be much higher.

Europe, which has some of the busiest shipping lanes in the world, has dramatically cleaned up sulfur and nitrogen emissions from land-based transport in the past 20 years but has resisted imposing tight laws on the shipping industry, even though the technology exists to remove emissions. Cars driving 15,000km a year emit approximately 101 grams of sulfur oxide gases (or SO<sub>x</sub>) in that time. The world's largest ships' diesel engines which typically operate for about 280 days a year generate roughly 5,200 tons of SO<sub>x</sub>.

The EU plans only two low-emission marine zones which should come into force in the English Channel and Baltic Sea after 2015. However, both are less stringent than the proposed US zone, and neither seeks to limit deadly particulate emissions.

Shipping emissions have escalated in the past 15 years as China has emerged as the world's manufacturing capital. A new breed of intercontinental container ship has been developed which is extremely cost-efficient. However, it uses diesel engines as powerful as land-based power stations but with the lowest quality fuel.

#### **85. Scientist Concludes Ice Study Has Good and Bad News for Planet**

A study of Greenland's ice sheet has revealed that a vast store of planet-warming methane appears to be more stable than thought, easing fears of a rapid rise in temperatures. Methane is about 25 times more powerful at trapping heat in the atmosphere than carbon dioxide (CO<sub>2</sub>) and vast amounts of the compound are trapped in permafrost in the far northern hemisphere or in seabed deposits called clathrates. Scientists have feared climate change could trigger a huge release of methane from the clathrate reservoir, sending global warming spiraling out of control.

Vasilii Petrenko of the Institute of Arctic and Alpine Research at the University of Colorado and an international team of scientists spent six years studying air samples from vast blocks of Greenland ice to see if a rapid rise in temperatures about 12,000 years ago was triggered by methane from clathrates or another source. The results showed the methane was most likely to have come from wetlands rather than the clathrates, deposits which resemble ice and are held in place on the ocean bed by high pressures and relatively low temperatures.

Petrenko said temperatures in Greenland 12,000 years ago had increased about 10 degrees Celsius in 20 years. But it took 150 years for methane levels in the atmosphere to increase by 50 percent. The rapid warming was driving the release of methane, he said, with the most likely sources being tropical wetlands and the vast northern wetlands created after the large-scale retreat of ice sheets about 18,000 years ago.

Previous studies of ice core samples from Greenland and Antarctica had shown an increase in methane levels about 11,500 years ago came from the tropics and the northern wetlands. But Petrenko and his team wanted to be sure of the source, particularly since a massive release of methane from clathrate deposits is believed to have sent temperatures soaring about 56 million years ago, when the planet was much warmer than today.

His team measured the amount of an isotope called carbon-14 (C14) in tiny amounts of methane extracted from air bubbles trapped in Greenland ice going back 12,000 years. C14 deteriorates at a known rate, so the scientists can use it to determine the age of the ice and also the likely source of the methane. Methane from wetlands has different C14 "signature" than methane from clathrate deposits.

Only about one trillionth of the methane from the air bubbles contained the carbon-14 isotope. The analysis was undertaken at Australian Nuclear Science and Technology Organization.

"The results definitely help us to say that it doesn't seem methane clathrates respond to warming by releasing lots of methane into the atmosphere, which is really good news for global warming."

But the sting in the tale was the ice core records showing methane levels rising as the planet warms. "We're warming now and we know that there's evidence of northern wetlands becoming more productive. If it's not clathrates, the wetlands might still drag the methane up."

## **86. Rich Nation Greenhouse Gas Emissions Rise In 2007**

Greenhouse gas emissions from industrialized nations rose by nearly one percent in 2007, led by strong gains in the United States, official data showed. Carbon emissions from countries signed up to the Kyoto Protocol climate pact edged up by 0.1 percent in 2007, mainly due to rises in Japan and Canada.

"The numbers are ... a bit depressing," said Knut Alfsen, research director at the Center for International Climate and Environmental Research in Oslo, saying they showed a failure to shift away from fossil fuels. "It shows that we are not able to de-link economic growth from emissions."

Although 2007 carbon dioxide (CO<sub>2</sub>) figures from a few economies including Australia and Ukraine were not yet available, comparing like-for-like figures showed emissions from countries with targets under Kyoto were 14 percent below 1990 levels, exceeding their goal of a 5 percent reduction by 2012.

The full 2007 data including the U.S. and Turkey, which do not have targets under Kyoto, showed that industrialized emissions were 2.1 percent below 1990 levels.

Under Kyoto, 40 or so developed countries committed in 1997 to cut their greenhouse gas emissions by an average of 5.2 percent below 1990 levels between 2008-2012. Since then, the U.S., historically the world's biggest emitter, has decided not to ratify the treaty.

The U.N. data showed that like-for-like industrialized emissions grew by 145 million tons in 2007, with the U.S. accounting for over 100 million tons of that. The U.S. emitted 7.1 billion tons of CO<sub>2</sub> in 2007.

The biggest percentage increases came from Estonia and Turkey, with emissions up by 14.8 and 12.0 percent respectively.

Germany saw the largest net decrease, cutting its CO<sub>2</sub> by 23.9 million tons or 2.4 percent, while Liechtenstein and Denmark made the deepest percentage cuts, chopping CO<sub>2</sub> by 10.8 and 6.2 percent, respectively.

The 27-nation European Union cut its emissions by 1.4 percent to 5.03 billion in 2007, 12.3 percent below 1990 levels.

Nearly half of signatory nations have already hit their Kyoto goals, though much of this can be attributed to economic restructuring and the closure of industry in Eastern Europe following the collapse of the Soviet Union, rather than through investment in cleaner energy or energy efficiency.

Canada's emissions have grown alongside its economy, boosted by stronger energy prices, though Ottawa has said it is unlikely to reach its 6 percent Kyoto reduction target. Canada's emissions rose by 4 percent in 2007, putting the country's CO<sub>2</sub> at 29 percent over 1990 levels.

With a rise of 2.3 percent in 2007, Japan is also significantly above its own 6 percent reduction target, but is buying emissions rights from other nations that have cut CO<sub>2</sub>.

### **87. IPCC Scientists Paint Gloomy Picture in Poll**

Global warming is likely to overshoot a 2 degrees Celsius (3.6 F) rise seen by the European Union and many developing nations as a trigger for "dangerous" change, according to a poll of scientists. Nine of 11 experts, who were among authors of the final summary by the U.N.'s Intergovernmental Panel on Climate Change in 2007 (IPCC), also said the evidence that mankind was to blame for climate change had grown stronger in the past two years.

Giving personal views of recent research, most projected on average a faster melt of summer ice in the Arctic and a quicker rise in sea levels than estimated in the 2007 report, the most authoritative overview to date drawing on work by 2,500 experts.



Ten of 11 experts said it was at best "unlikely" -- or less than a one-third chance -- that the world would manage to limit warming to a 2 degrees Celsius (3.6 Fahrenheit) rise above pre-industrial levels.

Removal of manmade sun-blocking smoke under clean air laws may add a 1 Celsius rise while oceans will warm further under a lag effect, underscoring how near the 2 degrees limit is already.

The IPCC said in 2007 that it was at least 90 percent certain that human activities, led by burning fossil fuels, were the main cause of warming in the past 50 years. Nine of the eleven reckoned that evidence was stronger now; two said it was unchanged.

Six of the scientists said world average annual temperatures would set a new record by 2015 -- and another four projected that it would happen by 2020 -- dismissing views from skeptics that global warming has stopped. The hottest year since records began in the 19th century was 1998, according to the World Meteorological Organization.

And the scientists generally said that sea levels would rise faster than projected in the IPCC report, in a threat to many cities, islands and coasts from Bangladesh to Florida. The IPCC said seas would rise by between 18 and 59 cms (7-24 inches) this century. But it pointed to big uncertainties about ice sheets in Greenland or Antarctica -- one IPCC estimate was that this ice could add up to 20 cms to sea level rise. In the poll, the lowest projection for sea level rise by 2100 was 30-40 cms, the highest up to 140 cms. And 10 of those polled projected that Arctic late summer sea ice could vanish before 2050, with two saying it could disappear by 2020. The IPCC had said some scenarios pointed to a loss in the latter half of the century.

### **88. World Will Not Meet 2C Warming Target, Climate Change Experts Agree**

Almost nine out of 10 climate scientists do not believe political efforts to restrict global warming to 2C will succeed, according to a Guardian poll. An average rise of 4-5C by the end of this century is more likely, they say, given soaring carbon emissions and political constraints.

The poll of those who follow global warming most closely exposes a widening gulf between political rhetoric and scientific opinions on climate change. While policymakers and campaigners focus on the 2C target, 86% of the experts told the survey they did not think it would be achieved. A continued focus on an unrealistic 2C rise, which the EU defines as dangerous, could even undermine essential efforts to adapt to inevitable higher temperature rises in the coming decades, they warned.

The survey follows a scientific conference last month in Copenhagen, where a series of studies were presented that suggested global warming could strike harder and faster than realized.

The Guardian contacted all 1,756 people who registered to attend the conference and asked for their opinions on the likely course of global warming. Of 261 experts who responded, 200 were researchers in climate science and related fields. The rest were drawn from industry or worked in areas such as economics and social and political science.

The 261 respondents represented 26 countries and included dozens of senior figures, including laboratory directors, heads of university departments and authors of the 2007 report from the Intergovernmental Panel on Climate Change (IPCC).

The poll asked the experts whether the 2C target could still be achieved, and whether they thought that it would be met: 60% of respondents argued that, in theory, it was still technically and economically possible to meet the target, which represents an average global warming of 2C since the industrial revolution. The world has already warmed by about 0.8C since then, and another 0.5C or so is inevitable over coming decades given past greenhouse gas emissions. But 39% said the 2C target was impossible.

The poll comes as UN negotiations to agree a new global treaty to regulate carbon pollution gather pace in advance of a key meeting in Copenhagen in December. Officials will try to agree a successor to the Kyoto protocol, the first phase of which expires in 2012. The 2C target is unlikely to feature in a new treaty, but most of the carbon cuts proposed for rich countries are based on it. Bob Watson, chief scientist to Defra, told the Guardian last year that the world needed to focus on the 2C target, but should also prepare for a possible 4C rise.

Asked what temperature rise was most likely, 84 of the 182 specialists (46%) who answered the question said it would reach 3-4C by the end of the century; 47 (26%) suggested a rise of 2-3C, while a handful said 6C or more. While 24 experts predicted a catastrophic rise of 4-5C, just 18 thought it would stay at 2C or under.

Some of those surveyed who said the 2C target would be met confessed they did so more out of hope rather than belief. "As a mother of young children I choose to believe this, and work hard toward it," one said. "This optimism is not primarily due to scientific facts, but to hope," said another. Some said they thought geoengineering measures, such as seeding the ocean with iron to encourage plankton growth, would help meet the target.

Many of the experts stressed that an inability to hit the 2C target did not mean that efforts to tackle global warming should be abandoned, but that the emphasis is now on damage limitation.

### **89. Airline Group Backs Global Emissions Trading Scheme**

Four of the world's top airlines have backed a global scheme to curb carbon emissions and hope the proposal will be included in a broader UN pact to fight climate change. It is the first time airline firms have banded together to make recommendations to UN climate change officials on how to tackle the sector's carbon emissions.

Aviation is responsible for about two percent of global greenhouse gas pollution and that share is expected to rise. As a result, leading green groups and the European Union have demanded that the sector clean up its act.

Air France/KLM, British Airways, Cathay Pacific, Virgin Atlantic, airport operator BAA and international NGO The Climate Group have proposed a deal that covers all carbon pollution from the international aviation sector.

This would ensure equal treatment for airlines and open the way to global emissions trading within the sector and possibly with other industries and countries.

The proposal by the six-member aviation deal group was presented to climate change negotiators in Bonn, Germany, where representatives from 175 nations are meeting to work on a broader climate pact to replace the Kyoto Protocol.

Many airlines say only a global approach is fair and criticize the European Union's decision to include aviation in the bloc's emissions trading scheme from 2012.

The scheme recommends that nations agree to a global cap on aviation emissions and that any scheme agreed must be integrated within a post-Kyoto climate pact set to take effect from 2013. According to the 43-point proposal, individual carriers would surrender allowances in proportion to the carbon content of their annual fuel purchases. A UN body should administer the system, including the auction of permits.

Auction proceeds would be split between the Kyoto Protocol's adaptation fund for developing nations, help fund development of sustainable biofuels for use in aviation and towards a UN-backed initiative that aims to save forests in poorer nations in return for tradeable carbon credits.

The group's next step is to conduct a deeper analysis of what the aviation cap might be as well as how best to integrate the scheme into the carbon market.

The ultimate aim is to have the scheme adopted as one of the proposals on the table when UN climate negotiators meet again in June in Bonn.

### **90. Melt from Andes to Arctic May Spur UN Climate Pact**

A fast melt of ice from the Andes to the Arctic should be a wake-up call for governments to work out a strong new United Nations treaty this year to fight climate change, according to Norway. Foreign Minister Jonas Gahr Stoere, starting two-day talks of the eight Arctic nations and scientists in the northern city of Tromsø, said ice was vanishing from land around the planet as temperatures increase, raising sea levels.

"It is a global phenomenon reflecting global warming," he told a news conference, referring to a thaw in places such as "the Himalayas, the Alps, the Andes, Kilimanjaro, Greenland, the South Pole or the North Pole."

Stoere said he and former U.S. Vice President Al Gore, also attending the Tromsø talks, planned to set up a task force of experts to study the melt and report to a U.N. conference in Copenhagen in December that is due to agree a new climate pact. Latest evidence of the melt would be a "clarion call, a real wake-up message to Copenhagen," he said.

Many glaciers are retreating but until now, he said the links between a thaw on mountains in the tropics and the Arctic have not been highlighted enough, he said. Vanishing ice "is not in the grey zone of probabilities, it is about to happen. It is serious, we have to deal with it," he said.

The U.N. Climate Panel projected in 2007 world sea levels would rise by between 18 and 59 cms (7-23 inches) this century. Some scientists have said the rate is likely to be closer to a

meter. And that can impact irrigation. A melt of the Himalayas could disrupt farming for hundreds of millions of people in Asia.

The U.N. has projected up to a quarter of global food production could be lost by 2050 due to a combination of climate change, water scarcity, degradation and species infestation, as the world's population is forecast to top 9 billion.

"The Arctic continues to warm," according to a report by the Arctic Monitoring and Assessment Program, grouping scientists in the region. It said several indicators since a major 2005 report "show further and extensive climate change at rates faster than previously anticipated." Sea ice in summer shrank to a record low in 2007.

Stoere will hold talks about melting ice before a formal meeting of Arctic Council foreign ministers or deputies in the Arctic city of Tromsø, ringed by snow-capped mountains. The Council groups the United States, Russia, Canada, Finland, Sweden, Norway, Denmark and Iceland.

He said there were chances for cooperation in the Arctic, saying he hoped it would be "high north, low tension". Countries could act regionally to reduce pollution that accelerates the melt, he added. Soot from industrial pollution or from forest fires, for instance, can blacken snow and make it melt faster.

### **91. Traffic Exposure May Trigger Heart Attacks**

People who have had a heart attack are likely to report having been in traffic shortly before their symptoms began, researchers reported at the American Heart Association's 49th Annual Conference on Cardiovascular Disease Epidemiology and Prevention. In a German study of patients who had a heart attack, researchers found the patients to be more than three times as likely to have been in traffic within an hour of the onset of their heart attack. The researchers also observed small but statistically significant increases in the chance that a heart attack occurred within six hours after exposure to traffic.

Driving a car was the most common source of traffic exposure, but taking public transportation or riding a bicycle were other forms of exposure to traffic. Overall, time spent in any mode of transportation in traffic was associated with a 3.2 times higher risk than time spent away from this trigger. Females, elderly males, patients who were unemployed and those with a history of angina were affected the most by traffic.

"Driving or riding in heavy traffic poses an additional risk of eliciting a heart attack in persons already at elevated risk," said Annette Peters, Ph.D., lead author of the study and head of the research unit at the Institute of Epidemiology, Helmholtz Zentrum München, Germany. "In this study, underlying vulnerable coronary artery disease increased the risk of having a heart attack after driving in traffic."

While this study wasn't structured to pinpoint the reasons that being in traffic may have increased the risk of heart attack, "one potential factor could be the exhaust and air pollution coming from other cars," Peters said. "But we can't exclude the synergy between stress and air pollution that could tip the balance."

The researchers reviewed cases of heart attack through the KORA registry in Augsburg, Southern Germany between February 1999 and December 2003. They used a standardized interview with 1,454 patients to collect data on potential triggers of heart attack, including exposure to traffic in the four days prior to heart attack symptom onset.

The patients had a known date and time of heart attack and all had survived 24 hours after the heart attack. Participants were asked what they did the day of the heart attack, where they went, the means of transportation and time spent in traffic. The average age of the participants was 60 years and about 25 percent were women.

Previous studies by the researchers showed that those participating in strenuous activity such as playing soccer or squash or performing heavy work such as painting overhead or snow shoveling had five to six times the risk of heart attack in the subsequent hours after the activity. This study showed that about 8 percent of the heart attacks in the group were attributable to traffic, Peters said. "It's just one of the factors, but it's not a negligible number.

The researchers also said they were surprised that women appeared to be in the higher-risk group. "Their risk is more than five times higher," she said. "We're not sure what the physiological mechanism is behind this; however, it might also be due to the smaller number of women as we only interviewed 325 women in five years. A larger sample of women might have provided enough statistical power to detect a more accurate assessment of risk."

Co authors are: Stephanie von Klot, PhD, M.P.H.; Murray A. Mittleman, M.D., Dr.P.H.; Christa Meisinger, M.D., M.P.H.; and H. Erich Wichmann, M.D., Ph.D. This study was funded by a research agreement with the Health Effects Institute, Boston, and by the Helmholtz Zentrum München, German Research Center for Environmental Health, Neuherberg, Germany. The KORA research platform and the MONICA Augsburg studies were financed by Helmholtz Zentrum München, and by the German Federal Ministry of Health and Social Security.

## **92. Study Finds Long-term Ozone Exposure Raises the Risk of Dying**

Long-term exposure to elevated levels of ground ozone—a major constituent of smog—significantly raises the risk of dying from lung disease, according to a new nationwide study of cities that evaluated the impact of ozone on respiratory health over an 18-year period. The study found that the risk of dying from respiratory disease is more than 30 percent greater in metropolitan areas with the highest ozone concentrations than in those with the lowest ozone concentrations.

Over the last decade, several nationwide studies have shown that long-term exposure to tiny particles of dust and soot in air pollution is a risk factor for death from heart and lung disease. However, it was unclear whether long-term exposure to ozone, a widespread pollutant in summertime haze, was linked to a higher risk of dying from lung disease itself.

The new study, published in the March 12 issue of the *New England Journal of Medicine*, is the first nationwide population study on the long-term impact of ozone on human health, and the first to separate ozone's effects from those of fine particulate matter, the tiny particles of pollutants emitted by factories, cars, and power plants.

“Many studies have shown that a high-ozone day leads to an increase in risk of acute health effects the next day, for example, asthma attacks and heart attacks,” says George D. Thurston, Sc.D., a professor in the Department of Environmental Medicine at NYU School of Medicine who directed the air pollution exposure assessment part of the study. “What this study says is that to protect the public’s health, we can’t just reduce the peaks, we must also reduce long-term, cumulative exposure.”

In concert with rising death rates from respiratory disease, “background levels of ozone have at least doubled since pre-industrial-revolution times,” says Michael Jerrett, Ph.D., associate professor, Division of Environmental Health Sciences, at the University of California, Berkeley, and the lead author of the new study.

The study analyzed data on some 450,000 people who were followed from 1982 to 2000 as part of an American Cancer Society study. Over that period 118,777 people in the study died. The data, which included cause of death, were linked to air pollution levels in 96 cities using advanced statistical modeling to control for individual risk factors, such as age, smoking status, body mass, and diet, as well as for regional differences among the study populations.

By statistically controlling for the other major component of urban air pollution—fine particulate matter, particles smaller than 2.5 microns—the researchers were able to tease out the cardiovascular impact of the pollutants and still see ozone’s effects on respiratory health.

Ozone data collected between 1977 and 2000 showed that California had both the city with the highest and the city with the lowest concentration of ozone pollution in the country. The researchers estimate that the risk of dying from respiratory causes rises 4 percent for every 10 parts-per-billion increase in exposure to ozone. Based on that result, Dr. Thurston says the city with the highest mean daily maximum ozone concentration over the 18-year period of the study, was Riverside (104 ppb). This long-term cumulative exposure corresponded to roughly a 50 percent increased risk of dying from lung disease compared to no exposure to the pollutant. Los Angeles ran a close second, with an estimated 43 percent increased risk.

Northeast cities were generally lower in ozone than California. In Washington, DC, and New York City, for example, the study results indicate a 27 and 25 percent increased risk of respiratory death, as a result of their respective long-term ozone exposures, says Dr. Thurston. The estimated increased risk from cumulative exposure in New York occurs even though New Yorkers breathe air that is nearly in compliance with the EPA's present short-term ozone standard of 75 ppb, he says.

The lowest ozone concentration was seen in San Francisco (33 ppb long-term average daily maximum), which had an associated 14 percent increase in risk. San Francisco has low levels of ozone pollution because fog regularly blankets the city, which prevents the necessary photochemical reaction from occurring, says Dr. Jerrett. In addition, Dr. Thurston points out that the Los Angeles area, which has high levels, is located in a basin, which prevents the rapid dispersal and dilution of air pollution that occurs in San Francisco.

The present EPA air quality standards do not protect against the long-term cumulative effects of ozone exposures, but only address the health effects of short-term daily peaks in ozone exposure, says Dr. Thurston. Currently, the Environmental Protection Agency’s standard for short-term (8-hour) ozone exposure is 75 parts per billion, which exceeds the 60 ppb

recommended by the EPA's own scientific advisory group, the American Lung Association and more than a dozen other public health organizations. The EPA will be reviewing its ozone standard in the coming year.

The other co-authors of this study are: Kazuhiko Ito from the NYU School of Medicine; Arden Pope from Brigham Young University; Richard Burnett from Health Canada, the federal health department based in Ottawa; Daniel Krewski and Yuanli Shi from University of Ottawa; Michael Thun and the late Eugenia Calle from the American Cancer Society in Atlanta.

### **93. New Study: Black Carbon Responsible for Half of Arctic Warming**

An article published in Nature Geoscience shows that black carbon is responsible for 50 percent of the total increased Arctic warming from 1890 to 2007. The paper by Drew Shindell of the NASA Goddard Institute for Space (GISS) and Greg Faluvegi of Columbia University also notes that most of the Arctic warming occurred from 1976 to 2007. The study is the first to quantify the Arctic's sensitivity to black carbon emissions from various latitudes, and concludes that the Arctic responds strongly to black carbon emissions from the Northern Hemisphere mid-latitudes, where the emissions and the forcing are greatest.

Black carbon is an aerosol produced from the incomplete combustion of fossil fuels and biomass and is estimated to be the second or third largest contributor to climate change. Its emissions cause damage in two ways: while in the atmosphere, the dark particulates absorb sunlight and emit it as heat; when it falls back to earth it can darken snow and ice, reducing their reflectivity and accelerating melting.

Arctic warming is more than twice the observed global average surface warming above pre-industrial levels. According to another study published by Lenton, et al. in the Proceedings of the National Academy of Sciences last year, this increased warming may soon lead to the disappearance of the Arctic summer ice, which would in turn accelerate Arctic warming by exposing darker heat-absorbing water now covered by heat reflecting ice. This would also increase the risk of releasing methane and other greenhouse gases from permafrost and from methane hydrates in the ocean, which could lead to a runaway feedback process.

Because black carbon only remains in the atmosphere for several days to weeks, reducing it can bring about almost immediate mitigation of warming, whereas decreases in temperature lag reductions in CO<sub>2</sub> by 1,000 years or more.

### **94. Initiative Aims to Boost Cars' Fuel Efficiency By 50 Percent**

On March 4<sup>th</sup>, four international organizations launched an initiative to improve the fuel efficiency of cars by 50 percent over the next 40 years. The initiative, dubbed the "50 by 50" campaign, aims at a 30 percent average increase in fuel efficiency by 2020 and a 50 percent increase by 2050.

Backers of the initiative are the United Nations Environment Program (UNEP), the U.N.'s International Energy Agency (IEA), the International Transport Forum of the Organization for Economic Cooperation and Development (OECD), and the Federation Internationale de l'Automobile (FIA) Foundation, an association under the governing body of world motor sports.

The four groups said the targets can be achieved “using existing, cost-effective, incremental fuel economy technologies.” UNEP Executive Director Achim Steiner said now is a “critical moment” for the initiative, which will receive financial support through the Global Environment Facility.

Even a 50 percent improvement in fuel efficiency will do little to reduce global greenhouse gas emissions from the transportation sector, given projections that the number of cars on the road could triple by 2050 due to strong growth in sales in developing countries, the sponsors admitted. Steiner said UNEP views the fuel efficiency initiative as a “building block” toward more ambitious efforts in the sector, which accounts for a quarter of world carbon emissions.

According to the backers, “The technologies required to improve the efficiency of new cars 30 percent by 2020 and 50 percent by 2030, and the efficiency of the global car fleet 50 percent by 2050, mainly involve incremental change to conventional internal combustion engines and drive systems, along with weight reduction and better aerodynamics.”

Governments could foster the introduction of fuel-efficient technologies by providing more information on fuel consumption and carbon dioxide emissions to consumers, setting regulatory standards for fuel consumption, and levying vehicle taxes according to emissions levels or fuel economy, the backers said.

Steiner said efforts will focus on the developing world, where there is “virtually no fuel efficiency policy framework in any developing country.”

#### **95. International Group of Scientists Says 'Worst Case' Climate Scenarios Occurring**

On March 12<sup>th</sup>, a gathering of international scientists in Copenhagen warned that the world's climate could be altering at a faster pace than previously predicted. Any dilution of carbon dioxide emissions reduction targets for 2020, the scientists warned, could “increase the risk of crossing tipping points” which would render 2050 targets harder to achieve.

The International Scientific Congress on Climate Change, which took place March 10–12, focused on the latest scientific data ahead of the 15th Conference of the Parties to the United Nations Framework Convention on Climate Change (COP-15) in December, where a global climate change agreement to succeed the Kyoto Protocol is scheduled to be finalized.

While a final report from the scientific congress will not be available before June, preliminary conclusions published on March 12<sup>th</sup> said that many of the worst-case scenarios envisioned by the United Nations Intergovernmental Panel on Climate Change (IPCC) are in the process of being realized.

The IPCC is a scientific body set up by the World Meteorological Organization and by the United Nations Environment Program to provide objective information about climate change. In its Fourth Assessment Report, issued in 2007, the IPCC concluded that the impacts of climate change, including increased incidences of drought, flooding, and other damage to coastlines, as well as increased loss of endangered species, are already unavoidable this century, even if greenhouse gas emissions are cut significantly.

“For many key parameters, the climate system is already moving beyond the patterns of natural variability within which our society and economy have developed and thrived,” a final statement



from the March 10–12 scientific congress said. “These parameters include global mean surface temperature, sea-level rise, ocean and ice sheet dynamics, ocean acidification, and extreme climatic events. There is a significant risk that many of the trends will accelerate, leading to an increasing risk of abrupt or irreversible climatic shifts.”

The conference also reiterated previous IPCC predictions that climate change would have a disproportionate effect on certain countries and regions. “An effective, well-funded adaptation safety net is required for those people least capable of coping with climate change impacts,” the final statement read.

One of the attendees, Denmark's Minister of Climate and Energy Connie Hedegaard, said the global economic downturn should be seen as an opportunity to increase emissions-reduction measures. “Unfortunately, some of the facts [presented at the March 10–12 conference] are even more disturbing than the fourth report from the IPCC, the cornerstone in the [COP-15] negotiations,” Hedegaard said March 12 in a ministry statement. “The current economic crisis is no excuse for inaction,” Hedegaard said. “The policies needed to address climate change and revitalize our core infrastructure are the very same policies that can help rebalance and revitalize our economies.”

## **96. Investigation Into Pedestrian Exposure To Near-Vehicle Exhaust Emissions**

Inhalation of diesel particulate matter (DPM) is known to have a negative impact on human health. Consequently, there are regulations and standards that limit the maximum concentrations to which persons may be exposed and the maximum concentrations allowed in the ambient air. However, these standards consider steady exposure over large spatial and time scales. Due to the nature of many vehicle exhaust systems, pedestrians in close proximity to a vehicle's tailpipe may experience events where diesel particulate matter concentrations are high enough for brief periods of time to cause acute health effects.

In order to quantify these exposure events, instruments which measure specific exhaust constituent concentrations were placed near a roadway and connected to the mouth of a mannequin used as a pedestrian surrogate.<sup>4</sup> By measuring concentrations at the mannequin's mouth during drive-by events with a late model diesel truck, a representative estimate of the exhaust constituent concentrations to which a pedestrian may be exposed was obtained. Typical breathing rates were then multiplied by the measured concentrations to determine the mass of pollutant inhaled.

The average concentration of diesel particulate matter measured over the duration of a single drive-by test often exceeded the low concentrations used in human clinical studies which are known to cause acute health effects. It was also observed that higher concentrations of diesel particulate matter were measured at the height of a stroller than were measured at the mouth of a mannequin.

Conclusions: Diesel particulate matter concentrations during drive-by incidents easily reach or exceed the low concentrations that can cause acute health effects for brief periods of time. For the case of a particularly well-tuned late-model year vehicle, the mass of particulate matter inhaled during a drive-by incident is small compared to the mass inhaled daily at ambient

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<sup>4</sup> Neil A Buzzard, Nigel N Clark and Steven E Guffey, Environmental Health 2009, 8:13. Published on: 2009-03-30

conditions. On a per breath basis, however, the mass of particulate matter inhaled is large compared to the mass inhaled at ambient conditions. Finally, it was determined that children, infants, or people breathing at heights similar to that of a passing vehicle's tailpipe may be exposed to higher concentrations of particulate matter than those breathing at higher locations, such as adults standing up.