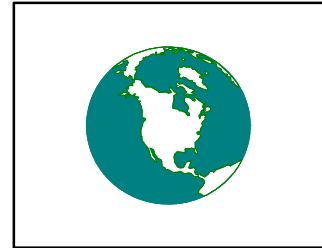


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# CAR LINES

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## EUROPE

### 1. MEPs Pick Apart EU Particulate Pollution Rules

The European parliament's environment committee wants to dilute current and proposed future EU air quality standards. The committee voted on proposals tabled by the European commission a year ago to consolidate existing air quality limits. MEPs said they wanted lighter controls on particulate matter and longer exemption periods for air pollution hotspots having trouble meeting the limits.

EU environment commissioner Stavros Dimas said the committee's votes contained "some positives but mainly non-positives". Air quality campaigners at the European Environmental Bureau said the committee's changes to the directive would be a "bitter blow to our citizens' health" and a "blank check for polluters".

MEPs backed a series of changes to existing rules on large particulate matter (PM10) and plans for first-ever curbs on smaller particulates (PM2.5). On PM10 they wanted to raise the number of times a daily average limit of 50 micrograms per cubic meter (ug/m3) can be exceeded from 35 to 55 days. As compensation they said a yearly average limit of 40 ug/m3 should be tightened to 30 ug/m3 from 2010.

On PM2.5 the committee said a proposed blanket target for all member states to reduce population exposure by 20% over the decade to 2020 should be differentiated according to actual national pollution levels. The target should remain at 20% where initial PM2.5 levels are over 20 ug/m3, but should fall in steps to 0% at 10 ug/m3 or below. A separate binding concentration cap on PM2.5 levels in air of 25 ug/m3 to be met by 2010 should be changed to 20 ug/m3 by 2015, they said.

On top of these changes the committee said member states should get significant extra flexibility to delay meeting the particulates targets depending on national circumstances. The commission has proposed a maximum of five years for PM2.5 and a latest deadline of December 2009 for PM10. The committee wants five years for both, plus an extra five-year period under certain conditions. Both derogations would be subject to European commission approval.

The EEB said the derogations would allow the targets to be delayed "until almost twenty years after the standards were first agreed".

Mr. Dimas said it was the first time since he took office that MEPs had sought to dilute his proposals. "I am determined that I will not allow a weakening of existing standards," he said.

MEPs also passed a related non-legislative resolution on the EU's Cafe strategy for a long-term air quality policy. In contrast to their stance on the directive, MEPs said in this that the EU should aim at deeper cuts in a range of pollutants.

### 2. Ministers Agree New EU Air Quality Limits

On June 27<sup>th</sup>, EU environment ministers reached a provisional agreement on revised air

quality limits for the bloc. The accord slightly weakens limits proposed by the European commission last year but is still stronger than a preliminary position reached by the European parliament's environment committee (see above).

Ministers were debating a revision of EU air quality directives proposed by the European commission last September. At an environment council in Luxembourg they reached a "general approach" on the law - an interim deal that will be upgraded into a full political agreement once the parliament has adopted its final position.

The council said a deadline to meet a proposed new limit of 25 micrograms per cubic meter on fine particulate matter (PM2.5) should be delayed by five years, until 2015. The commission has accepted the change: it originally proposed a deadline of 2010 with five-year waivers given to member states having trouble meeting the mark.

Ministers also agreed to give themselves longer to meet existing targets to cut ambient concentrations of coarse particulate matter (PM10). The limit values should be met by 2007, with possible three-year extensions for member states. The position is equivalent to the commission's proposal, which retained the original 2005 deadline but offered five-year derogations.

The compromise gained wide acceptance at the council but was strongly opposed by the Netherlands, which complains that its geographical location between several large particulate-producing countries makes it difficult to meet the targets. It tried and failed to persuade the council to link compliance with the targets to the introduction of measures curbing particulate emissions.

Environment minister Pieter van Geel told journalists the meeting had been an "exercise in hypocrisy". "When you set a rule, you also have to introduce the measures to comply with the rules," he said. The Netherlands claims Poland, Greece, Hungary and two of the three Baltic States will also vote against the deal. In contrast, Sweden indicated it would oppose the deal as too weak on air quality protection.

In a separate debate with EU enterprise commissioner Gunter Verheugen all but one member state - France - called for the commission to propose immediately new Euro 6 vehicle emission standards, according to council sources. Mr. Verheugen told ministers his proposals would emerge only after the completion of a commission impact assessment.

EU member states will have to produce air quality plans to show how they will meet the target.

Ministers said in a statement that the agreement on air rules "takes account of member states' current difficulties in reaching air quality targets and allows for a time-limited extension of attainment dates for limit values under clearly-defined conditions."

The European Parliament will vote on the proposals in September 2006, after which they will return to ministers, who hope for final agreement by the end of the year.

### **3. Nitrogen Pollution Blamed On Cleaner Cars**

UK scientific advisors have blamed a failure to reduce roadside levels of nitrogen dioxide (NO<sub>2</sub>) on increased use of advanced pollution control systems on diesel vehicles. NO<sub>2</sub> was until recently a minor component of total nitrogen oxides (NO<sub>x</sub>) pollution, which is mainly produced by road vehicles. But levels are not falling in line with a general decline in NO<sub>x</sub>. In London, at least, the EU air quality standard for NO<sub>2</sub> could continue to be exceeded by 2010 as a result, the scientists warn.

The report<sup>1</sup> was commissioned by Defra in January 2006 to consider why, despite significant falls in annual mean concentrations of nitrogen oxides (NO<sub>x</sub>) in urban areas over recent years, concentrations of NO<sub>2</sub> (a component of NO<sub>x</sub>) at roadsides have not declined as expected. AQEG analyzed monitoring and emissions data and carried out modeling studies to determine the extent of this trend and investigate the possible explanations.

The draft AQEG report found that:

- the most likely explanation of the observed trend in NO<sub>2</sub> concentrations is a change in the percentage of road traffic NO<sub>x</sub> emissions directly emitted as NO<sub>2</sub>. Total emissions of road traffic NO<sub>x</sub> have decreased at the same time
- emissions measurements indicate that the increased proportion of primary NO<sub>2</sub> from road transport is related to the increasing number of light-duty diesel vehicles, especially Euro III cars fitted with oxidation catalysts and the fitting of diesel particulate filters to heavy-duty vehicles, particularly London buses
- the increase in the fraction of NO<sub>x</sub> emitted as NO<sub>2</sub> by road traffic is likely to have implications for the attainment of the Air Quality Strategy Objectives for NO<sub>2</sub>. Levels are still expected to fall in the future however not as fast as had previously been expected.

AQEG highlights the importance of future choices of vehicle abatement technologies, particularly with regard to particulate matter (PM) reduction methods that may increase primary NO<sub>2</sub> emissions. The Group draws attention to the conclusions of its first report (Nitrogen Dioxide in the United Kingdom) which highlighted that NO<sub>2</sub> should not be considered in isolation from other pollutants, and that trade-offs would be likely.

Diesel oxidation catalysts and particulate filters are increasingly fitted to motor vehicles to comply with tighter vehicle emissions standards and to ensure compliance with air quality standards for PM<sub>10</sub>.

The best current evidence suggests that health effects from exposure to particulate matter are much more significant than those from NO<sub>2</sub>. Long-term exposure to PM<sub>10</sub> is linked to respiratory and cardiovascular diseases and symptoms amongst patients suffering from asthma. The observed changes in NO<sub>2</sub>/NO<sub>x</sub> ratio are localized and have no climate change implications.

The deadline for comments on the draft report is 7 November 2006. The final report is expected to be published in spring 2007.

#### **4. EU To Host Workshop On Direct NO<sub>2</sub> Emissions From Road Vehicles**

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<sup>1</sup> Trends in Primary Nitrogen Dioxide in the UK

The European Commission, DG Environment has announced that it will host a workshop in September 2006. The workshop is motivated by the observation that the share of NO<sub>2</sub> in the NO<sub>x</sub> emitted by road vehicles, notably diesel vehicles, is rising. This has implications for the ability of Member States to comply with the ambient air quality limit values on NO<sub>2</sub> that enter into force in 2010. The purposes of this workshop are to:

- review the available knowledge about the role of direct NO<sub>2</sub> emissions from motor vehicles in contributing to ambient NO<sub>2</sub> concentrations;
- discuss the likely future development of motor vehicle NO<sub>2</sub> emissions, and to
- map out the need and scope for any action.

The working language will be English.

## **5. Scramble to Save Lives as Heatwave Hits Europe**

European governments scrambled to save lives in record high temperatures to avoid a repeat of the catastrophic heatwave of 2003 that killed 15,000 people in France and 2,000 in Britain. In Britain, temperatures hit an all-time high for the month of July, touching 36.3 degrees Centigrade (97.34 Fahrenheit) south of London to edge out the previous record set in 1911.

Germany's national meteorological service said July was on the way to being the hottest since records began in many parts of the country.

In France, an 85-year-old man admitted to hospital and an 81-year-old woman found dead in her home were the first people believed to have died there because of the heat. Officials said nine people were believed to have died.

Britain launched an emergency plan of extra visits to the elderly and vulnerable. British bookmakers stopped taking bets temperatures would soar above 100 degrees Fahrenheit (37.77C) for only the second time -- the first was in August 2003.

The searing heat and expected storms threatened to damage northern Europe's wheat crop just days before the harvest, especially hitting Germany and France.

Electricity grids were straining. In Britain the national grid warned that blackouts could be possible because of increased demand from air conditioners.

France's main electricity provider EDF said it had to buy power abroad. Not only did demand rise, but the company had to curtail production to maintain safety at nuclear power plants cooled by river water.

The mayor of Paris announced free residential parking and advised people to avoid motorized transport to reduce the danger of ozone pollution.

At Buckingham Palace, officials laid on extra water for 8,000 guests at a garden party for military veterans after several guests at a similar palace event fainted.

The House of Commons issued a special "shirt-sleeve order" allowing journalists covering Britain's parliament to break with convention and enter the chamber without a

jacket.

In the Netherlands, organizers cancelled a four-day walking event after two participants died of the heat. Firefighters handed out water to drivers stuck in traffic jams.

Police said a 14-year-old boy in central England drowned in a canal after he jumped in to cool off.

In Ireland, firefighters battled a gorse blaze close to a beach south of Dublin on Tuesday after temperatures pushed above 30 degrees Centigrade for the first time in more than a decade.

Newspapers tried to help people cool off. Germany's biggest-selling daily Bild published a list of the coolest places in Berlin, including the fish counter at the Karstadt department store and the penguin house at the zoo.

## **6. Italy's New Environment Minister Pledges to Comply With EU Directives**

Italy's new government will do more to comply with European Union environmental directives, the country's new Environment Minister Alfonso Pecoraro Scanio announced in his first press conference since being appointed in May. The new minister blasted the previous government for failing to do more to comply with EU rules, saying the country had become the least-observant member state when it came to EU rules.

According to the ministry, the European Commission is conducting some 80 proceedings into Italian noncompliance, compared with 22 cases of noncompliance when the previous government came to power in 2001. Documents said that Italy could be fined a total of [Euros] 100 million (\$126 million) for failing to meet deadlines in eight cases.

According to other ministry officials, most of the violations deal with waste disposal and improper zoning for new construction projects.

## **7. Netherlands Offers Tax Breaks For Hybrid Cars**

From July 1<sup>st</sup>, the Dutch car registration tax – payable on purchasing a new car – will be strongly differentiated according to the vehicles' environmental performance. The greenest hybrid cars will secure a €6,000 discount compared with standard rates now (which vary according to model). The tax on the least green cars will be €540 higher than currently.

Cars will be classified into seven categories based on their fuel consumption, CO2 emissions and an efficiency indicator relative to other cars of a similar size. The maximum discounts for conventionally fuelled vehicles will be €1,000. Only hybrid cars will be eligible for the maximum €6,000 discount.

The initiative, which a Dutch environment ministry spokesperson called "quite unique", comes as draft EU legislation is under debate in Brussels that would require all governments to link car tax rates more to vehicles' CO2 emissions. The directive also calls for registration taxes to be phased out in favor of annual circulation taxes.

## **8. Gas-Guzzling Cars in London May Face Higher Charges**

Drivers of the least environmentally friendly vehicles could face charges of up to 25 pounds a day to enter the capital's central congestion zone, under new proposals outlined by Mayor Ken Livingstone. Livingstone told the London Assembly about plans for the charge to reflect the carbon emission of vehicles in the same way as cars are subjected to road tax.

The proposals would be for cleaner vehicles to pay slightly less than the current 8 pound charge while the more fuel-hungry would pay on an incremental scale, up to 25 pounds for gas-guzzlers like big 4x4 off-roaders.

The chairman of the assembly's Transport Committee said he welcomed the proposals.

The AA Motoring Trust said raising the levy to 25 pounds ran the risk of "sweeping up family cars and people carriers that allow large numbers of passengers to travel in one vehicle."

Livingstone's office said the proposals were at a very early stage and that all interested parties, including drivers, would have an opportunity to express their views during any consultation period.

## **9. Londoners Want To Make 4x4 Owners Pay More Charges**

Despite strong sales of 4X4s, over two-thirds of Londoners want motorists to be discouraged from driving large off-roaders in the capital, according to a newly released poll. Research by Ispos-MORI on behalf of the Greater London Authority (GLA) found 68 percent of Londoners would be happier with fewer Sports Utility Vehicles (SUVS) on the city's congested streets.

"Two thirds of Londoners back the idea that cars that do more damage to the environment should pay a higher congestion charge, and the same number want cars that do less damage to pay a lower charge," said London Mayor Ken Livingstone. Livingstone has proposed drivers of the least environmentally friendly vehicles should face charges of up to 25 pounds a day to enter the capital's central congestion zone, compared with the current rate of eight pounds for all cars.

But the findings of the poll -- conducted among 1,006 Londoners in July -- contrast with actual sales of 4x4 vehicles, mockingly dubbed "Chelsea Tractors" by their critics after the upmarket London district where they are especially popular. Research in February showed Londoners were twice as likely as other Britons to buy off-roaders. One in six people in the capital who were looking to replace their car in 2006 said they would buy a 4x4, according to the AA.

Although there have been attempts by green groups to make driving a big 4x4 socially unacceptable, the national market for off-roaders remains strong. Last year just over 187,000 were sold, representing 7.7 percent of the market, compared with 3.9 percent 10 years ago. This level is much lower than in the US however, for example.

## **10. European Parliament Agrees To Include Aviation in Trading Scheme**



On July 4<sup>th</sup>, the European Parliament overwhelmingly supported a proposal to extend the EU carbon emissions trading scheme to include civil aviation. By 439 votes to 74, with 102 abstentions, lawmakers endorsed a report from the Parliament's Environment Committee that called for aviation to be brought into the scheme on a stand-alone, trial basis for the period 2008-2012.

The EU emissions trading scheme is designed to help the bloc comply with its commitments to reduce greenhouse gas emissions under the Kyoto Protocol. The treaty does not directly cover aviation, but it does call on parties to work toward including the sector in coordination with the global regulatory body, the International Civil Aviation Organization (ICAO).

The author of the Parliament committee report, British lawmaker Caroline Lucas, said, "A separate, closed system for aviation is crucial, at the very least, at the pilot scheme stage. Apart from the administrative difficulties of including aviation within the European Union's general Emissions Trading Scheme (ETS), many sectors already in that scheme are concerned about the possible effects on carbon prices, noting that aviation would be able to tolerate higher prices."

The European Commission, the EU's executive body, raised the possibility of aviation emissions trading in a discussion paper covering a raft of aviation regulatory issues issued last September. Representatives of the EU's 25 member state governments backed the idea in principle at a December summit.

Lawmakers urged the Commission to specify which segments of the aviation industry would be defined as the "participating entities" in the proposed trading scheme: airlines, airports, or aircraft operators such as charterers or leasing firms.

The Commission also needs to determine an emissions cap for aviation, and to consider a compliance regime, the lawmakers suggested.

Presenting her report, Lucas said that although aviation accounts for only 3 percent of EU emissions, its 4 percent annual growth rate is "completely unsustainable." She cited estimates that the aviation boom would "neutralize" more than a quarter of the emission reductions the EU is striving for to comply with the Kyoto Protocol.

Other measures are also needed to address the full climate impact of aviation, she said. These could include, for example, steps to reduce nitrogen oxide emissions, she said.

## **11. France Probes Path To Cut Emissions By 2050**

France should set an ambitious medium-term objective to reduce greenhouse gases as a first step towards reaching its long-term goal of cutting emissions 75% by 2050 compared with 1990, according to a working group. Launched last year by the French government to explore ways to achieve this goal, the working group recommends a 25% reduction objective by 2020 compared with 2004. The government will respond with a report to be published this autumn.

Among its 29 recommendations, the group says that debate on how to reach the 2050

goal should not focus on nuclear electricity generation, and that biomass energy will have to be "massively" used in electricity and heating.

Other recommendations include limiting CO<sub>2</sub> emissions from cars to 100g/km by 2020. This could be achieved through a carbon credit trading scheme set specifically for car manufacturers, the group says.

The group also recommends reducing motorway speed limits by 10 km/hr. A 2003 study by French energy agency estimates that this would save around 2 million tons of CO<sub>2</sub> every year. Other possibilities would be to tax kerosene and road freight transport, and reintroduce the French car registration tax with a "strong environmental content".

## **12. Finnish EU Presidency Environmental Calendar**

Finland took over the six-month rotating presidency of the EU's council of ministers on July 1<sup>st</sup> and has set out the governmental agreements it expects to achieve during the term in a set of draft agendas for ministerial meetings.

At the presidency's first environment council on 23 October Finland wants to see political agreement on a first reading of the draft revised EU air quality framework directive, following an outline deal achieved at the end of last month. The same gathering is expected to reach agreement on new Euro 5 vehicle emission standards. There should also be ministerial resolutions responding to recent European Commission plans for EU biodiversity policy and preparing for a round of global climate change talks in Kenya in early November.

At the second environment council on 18 December Finland hopes to seal political agreement on the first reading of a revision to the EU's waste framework directive. It will attempt a similar deal on a draft marine environment framework directive.

The same meeting will adopt a resolution on the EU sustainable resource use strategy. Ministers will also hold policy debates on a planned thematic strategy on sustainable pesticide use and proposals to set water quality objectives for a series of dangerous substances. Both are due imminently from the commission.

Competitiveness ministers will meet on 4 December to reach political agreements on two sets of proposed marketing and use restrictions: one on mercury in thermometers and other measuring devices and on perfluorooctane sulphonates (Pfos).

A meeting of the energy council on 23 November will reach a provisional political agreement on a revision to the Energy Star office equipment eco-label. It will also adopt a non-legislative resolution on an energy efficiency action plan expected from the European Commission and hold a debate on the promotion of renewable energy in the EU.

Agriculture ministers should reach political agreement on new rules for organic food production and labeling by their 20 November meeting. They will pass a resolution on the EU forest action plan on 24 October. They will also decide the fate of eight controversial pesticides on 18 July or 18 September. They may reach a provisional agreement on promoting energy crops on 19 December.

On 28 November finance ministers are set to agree derogations from EU minimum energy tax rates.

### **13. German Biodiesel Fuel Tax Breaks Set to Be Phased Out Beginning Aug. 1**

German tax protections for biodiesel fuel will start to disappear on August 1, under legislation approved July 7 by the Bundesrat (house of Parliament representing state governments). The federal Cabinet had approved the change June 28.

Biodiesel has been exempt from taxes to date in a bid to boost its use as opposed to petroleum-based fuels. Germany's Finance Ministry, however, said that the lack of taxes on biodiesel was straining capacity, and that all energy producers need to be taxed in order to ensure competition and market efficiency. Agriculture Minister Horst Seehofer added that the change will provide stability for the biofuels market.

Starting August 1, biodiesel fuel will be taxed at 9 euro-cents a liter. That tax will increase 6 euro-cents a year until it reaches 33 euro-cents. Finally, in 2012, the tax will increase to 45 cents a liter, the same as the tax on standard gasoline and diesel fuel.

Plant oil used for auto fuel also will be taxed at 45 cents a liter by 2012, but it will remain tax free through 2008, when a 10 cent tax per liter is imposed.

The 45 cent tax will also be imposed on coal and coke. However, natural and liquefied gas will still enjoy lower taxes.

### **14. Denmark to Restrict 'Chip Tuning, Seen As Raising Emissions**

Denmark will amend its Road Traffic Act of 2001 to introduce a number of restrictions on "chip tuning," or modifying vehicles' electronic systems to achieve better performance, the Transport and Energy Ministry said in a statement June 23. The new rules will require all providers of related services and equipment to demonstrate that their work does not lead to increased air pollution. The rules also outlaw the marketing and sale of non-approved devices. The changes also make vehicles that have had such work carried out subject to inspection, and require their registration documents to be revised to describe any changes.

In recent years the practice of altering a vehicle's electronic memory to achieve better performance or minimize fuel consumption has been on the increase across Europe and elsewhere. However, concerns that the process is leading to increased emissions led the Danish Environment Agency to commission a report from the Danish Institute of Technology in 2004. The report concentrated on diesel vehicles, as the process of chip tuning is most common where a demonstrable improvement in performance is easiest to achieve, which is the case with diesel engines.

Although investigators estimated that over 30 percent of newer diesel vehicles in Denmark had been chip tuned, they also reported that their attempts to gather information were hampered by a lack of response from car dealers and importers. The report concluded that the environmental effect of the process depended to a large extent on the quality of the tuning equipment and processes used, and that while under normal

driving conditions any increase in particle emissions was usually minimal, certain situations such as powerful acceleration could lead to particle emissions from chip tuned vehicles rising by "several hundred percent."

Danish Environment Minister Connie Hedegaard said in a statement June 23 that particle emissions from diesel vehicles constituted "one of the most serious traffic-related environmental problems we face today," and called the new legislation "an important contribution to efforts to reduce the release of dangerous particles."

In the amendments, chip tuning is defined as "alterations to a vehicle's factory-specified electronic engine management system, including replacement and reprogramming of the engine management system or manipulation of signals to and from the same."

Updating the engine management system as specified by the vehicle manufacturer is not regarded as chip tuning.

The new regulations also state that vehicle owners who contravene the registration requirements will be subject to fines and that companies offering chip tuning services that do not comply with the new rules could face criminal charges.

## **15. EU Commission Lists Actions To Reduce Transport-Related Pollution**

The European Commission has published a white paper listing actions to reduce pollution from the transportation sector, including freight, energy, and fuel programs. Part of a review of European Union transport policy and released June 22, the wish list contains a schedule for a series of plans and strategies to be published from 2006 to 2009, including a freight logistics action plan and a strategic technology plan for energy in 2007, and a green fuel program in 2009.

Other actions would deal with road safety and better management of the balance between road, rail, and other transport modes, according to Keep Europe Moving--Sustainable Mobility for Our Continent, Mid-term Review of the European Commission's 2001 Transport White Paper

The Commission said in a statement the review was necessary because EU transport policy, originally adopted in 2001, needed to adapt to "an enlarged Europe, rising petrol prices, Kyoto [Protocol] commitments, and globalization."

The strategic technology plan for energy would aim to reduce carbon dioxide emissions and curb EU fossil fuel dependency by improving fuel efficiency.

Steps also would be taken to replace oil with "biofuels, natural gas, hydrogen, electricity, or others," the report said.

A "green propulsion" program would support research into new biofuels and hydrogen for transport, as well as examine possibilities for "green trucks ... aircraft and ships."

Other measures may include using state aid to promote green vehicles, targets and voluntary codes, and investment support for alternative fuel infrastructures.

However, environmental groups and members of the European Parliament criticized the proposals, saying the white paper fails to address the EU's sustainable development strategy. Specifically, the European Federation for Transport and Environment (T&E) said the plans were not coherent with the EU's sustainable development strategy, which was adopted June 16 by EU leaders.

## **16. Revised EU Strategy Outlines Plans on Climate, Energy, Resources**

European heads of state have approved a new "sustainable development strategy" that outlines plans to address a range of issues including climate change and clean energy, sustainable transportation, and natural resource conservation.

The strategy, which replaces an earlier version dating back to 2001, was approved at the June 15-16 quarterly meeting of the European Council. The European Commission, which developed the new plan following a review of the old one last year, found that a number of unsustainable trends had accelerated since 2001 including climate change, natural resource consumption, and biodiversity loss.

The European Council called the new approach "ambitious and comprehensive."

The strategy calls for education and research initiatives to help change attitudes and behavior, and for measures such as higher taxes on energy and resource consumption.

EU member states are called on to revise or update their national sustainable development plans in line with the new strategy.

The European Environmental Bureau (EEB), a federation of environmental advocacy groups, was optimistic about the new approach. EEB Secretary General John Hontelez said the policy paper "gives a clear framework for energy, transport, agriculture, industry, development, trade, social and economic policies. It values environmental protection as an essential element of a successful EU, not as a burden."

## **17. Schools in Greece To Get Sensors for Regulating Air Particles**

On June 15<sup>th</sup>, the Greek government said schools located in densely populated areas or near main roads would be equipped with sensors capable of regulating air pollution particles that are posing a risk to schoolchildren's health. Environment Minister Giorgos Souflias said the plan would be implemented after studies on schools around Athens revealed that coarse particles (those with a diameter of less than 10 microns, PM-10) and fine particles (those smaller than 2.5 microns in diameter, PM-2.5), in both schoolyards and classrooms, were significantly over the European Union maximum level.

The Environment Ministry said it will install the sensors in 500 classrooms at 50 schools across the country by September. The ministry expects to record air pollution particles that have been shown to be harmful to residents of large urban areas and to regulate them using a ventilation system when they surpass a safe level.

Most air pollution in Greek urban areas originates from exhaust fumes and construction work. These small particles make their way to the air sacs deep within the lungs, where they may be deposited and adversely affect health.

A study carried out by the Environment Ministry on primary schools in Athens found that the concentration of air pollution particles in the classrooms ranged between 75 and 281 milligrams per cubic meter (mg/m<sup>3</sup>) for PM-10 and between 22 and 199 mg/m<sup>3</sup> for PM-2.5. The EU maximum level for daily exposure to PM-10 part is 50 mg/m<sup>3</sup>, and the U.S. daily limit for PM-2.5 particles is 15 mg/m<sup>3</sup>.

### **18. BP, DuPont to Collaborate To Create 'Next Generation of Biofuels'**

BP and DuPont announced a joint project June 20 to "develop, produce and market a next generation of biofuels" to help meet increasing global demand for renewable transport fuels. The companies plan to convert the United Kingdom's first ethanol fermentation facility to produce biobutanol. BP and DuPont have been working together since 2003 to develop advanced biofuels with properties they said can help "overcome the limitations of existing biofuels." The facility, located in the English county of Norfolk, will produce the fuel through the fermentation of sugar cane, beet, corn, wheat, or cassava.

The companies say biobutanol has the potential to be blended into gasoline at larger concentrations than existing biofuels without requiring retrofitting of vehicles, while offering better fuel economy than gasoline-ethanol blends. Biobutanol's low vapor pressure and its tolerance to water contamination in gasoline blends facilitate its use in existing gasoline supply and distribution channels, the companies said in a joint statement.

Biobutanol is to be introduced in the United Kingdom in 2007, according to the statement.

The companies said their collaboration "has now progressed to the point where they are able to bring the first jointly developed product to market." The strategy will "accelerate the move to renewable transportation fuels which lower overall greenhouse gas emissions," the companies said.

### **19. California, Sweden to Cooperate on Biofuel Research**

On June 15<sup>th</sup>, Sweden and California signed a memorandum of understanding to cooperate on the development of biofuels for vehicles through sharing information on best practices and through exchanging technical specialists and other personnel. Prior to the signing ceremony in Stockholm, a delegation from California spent four days in Sweden visiting facilities that produce biofuel from manure, crops, sewage, and industrial waste. The two governments began cooperating in the area last October, when a Swedish delegation headed by Sustainable Development Minister Lena Sommestad visited California. Sommestad signed the agreement with California's Energy Commissioner Jim Boyd. California's work on volatile organic compounds and hydrogen are of particular interest to Sweden. The agreement is valid for five years.

### **20. Unfiltered Trucks in London To Face Pollution Fines**

Plans to fine truck and coach drivers in London up to £1,000 for failing to meet strict new air pollution standards have moved a step closer. Owners of heavy vehicles without

emission filters will have to pay as much as £200 a day for driving in the proposed Low Emission Zone (LEZ), or risk a fine. The zone would include all 33 London boroughs, but not the M25. A network of mobile and fixed cameras would read the registration plates of large vehicles driving in Greater London.

Following a 12 week public consultation, the Mayor of London Ken Livingstone said he would make changes to the Transport and Air Quality Strategies to allow for the scheme. The next step will be a further consultation later this year on a draft scheme order.

The scheme, which would start in February 2008, would first apply to trucks over 7.5 tons. From July 2008 coaches, buses and trucks over 3.5 tons would also be included. A vehicle will be fined if records show it was built before 2001 and it has not been fitted with a filter. About 60,000 of the 180,000 heavy vehicles that enter London annually would have to be fitted with emission traps.

## **21. EU Advised On Better Costing Of Green Policies**

Experts have recommended ways to reduce sometimes gross overestimates in predictions of how much EU environmental policies will cost. A study for the European commission pinpoints a failure to allow for technological innovation as a key reason that green laws are so often forecast to be more expensive than they turn out to be.

Debates over the cost of green policies have been a constant feature of EU environmental policy making. Academics and environmental NGOs have previously pointed to a general tendency for business to overestimate costs. Today the European commission must also make such estimates for all major policy proposals.

The new report concludes that some overestimation is inevitable. It also implies that the new EU fashion for regulatory flexibility could make accurate predictions even more difficult. But it nevertheless proposes a series of ways in which accuracy could be improved.

- Cost estimates should draw on as many sources as possible.
- As green policies become more flexible, cost estimates should be updated frequently. "Feedback loops" should be set up to update cost predictions in light of experience.
- This could eventually lead to "rules of thumb" for factoring as yet unknown technological innovation, economies of scale and "learning curve effects" into initial cost estimates.
- It should be mandatory to analyse actual, as well as predicted, costs of policies so comparisons can be made and lessons learned. Before and after comparisons must compare like with like.
- Sensitivity analyses should be used to identify the parameters most likely to influence costs. A better understanding of business behavior and likely responses to policy is also urged.

- Finally, costs must be clearly defined and should always include avoided costs such as lower energy usage.

Among a series of reasons why predicted costs of EU environmental legislation so often turn out to be pessimistic, a failure to anticipate technological innovation emerges as most important. Case studies carried out on specific EU green laws include the following conclusions:

- Large combustion plants directive:

In the UK, it was originally estimated that controlling SO<sub>2</sub> emissions would raise electricity prices by 25-30%. A recent analysis charts a 2.5-5% increase over 15 years. The overestimate is largely put down to the unexpected development of a new turbine that cut the number of plants needing to be retrofitted with emission-reducing systems.

In Germany, industry's cost estimates for a similar piece of legislation were twice those of the environment ministry. The ministry's estimates, based on interviews with technology providers, were later proved largely accurate.

- Ozone-depleting substances:

Industry compliance estimates for EU legislation implementing a phase-out in CFCs and related substances ranged from 1.4 times to 125 times more than eventual costs. Using an example where inflation is not a factor, a comparison factor of 2.5 is found.

Analysis suggests industry simultaneously underestimated the extent and feasible rate of a phase-out and overestimated the unit cost. Conservative technological assumptions, resistance to the new law, and few incentives to provide realistic predictions are blamed.

- Vehicle emission controls:

Original cost estimates for introducing catalytic converters in Dutch road transport were about double the level that emerged in practice. The overestimation is attributed to a failure to consider an annual 10% reduction in the unit cost of new technologies through efficiency and economy of scale improvements.

- Nitrates directive:

Actual costs again turned out to be about half their predicted level, at least in part due to efficiency gains in nitrate use.

## **22. Milan Plans Vehicle Entry Toll**

Milan plans an entry toll on vehicles to reduce congestion and air pollution, according to a city hall spokeswoman. Milan's new center-right mayor Letizia Moratti wants to start the toll, on vehicles owned by non-residents, on a test basis on January 1<sup>st</sup>.

"The cars that pollute the most will bear the greatest cost," the spokeswoman said. Italy's financial capital is considering an initial charge of one (US\$1.28) to three euros.



In London, motorists are charged eight pounds (US\$15.09) to enter the city. Those who live within the "congestion charge" zone are eligible for a 90 percent discount.

An average of 763,500 vehicles enters Milan daily and about 70 percent of them belong to non-residents. About 86 percent of the overall figure belongs to private motorists. The toll is part of Moratti's campaign promise to cut the number of vehicles in Milan by 30 percent in five years.

Milan would be the first Italian city to set an entry toll, though Bologna charges drivers to enter its historic center.

Milan's subway system charges one euro in the city but covers only a small portion of the 4.3 million people in the metropolitan area.

### **23. EU Threatens To Get Tough On Car Makers Over CO<sub>2</sub> Emissions**

Car makers must take urgent action to meet agreed reductions in CO<sub>2</sub> emissions or face the threat of tough new EU rules, the European commission has announced.

Manufacturers from Europe, Japan and Korea pledged in 1998/99 to voluntarily reduce carbon dioxide emissions in new cars to 140g/km by 2008/09, but the latest figures show that they are still far from attaining that goal. Data from 2004 showed that while emissions had fallen by 12.4 per cent since 1995 to an average of 161g/km, the rate of progress remains slow, with cuts of more than twice that level necessary to meet the deadline.

The EU's long-term aim is to reduce emissions to just 120g/kg by 2010, a target that now seems extremely ambitious.

"The reductions are welcome but by no means satisfactory," a commission spokesman said on Tuesday. He said that Brussels was considering the possibility of legally binding measures if the manufacturers failed to meet the targets, which remained "feasible". "The commission has always been clear that it won't hesitate to replace the carrot with the stick if the targets are not met," the spokesman said.

He said that emission reduction rates would have to increase to around 3.3 per cent a year for European and Korean producers and by 3.5 per cent for Japanese producers, if the targets were to be met. European and Japanese manufacturers reduced emissions by just 1.2 per cent between 2003 and 2004, a slowdown compared to previous years. But the impressive reductions achieved by Korean car makers – 6.1 per cent between 2003 and 2004 – showed that the goals were still "technically feasible", the spokesman said.

Road transport accounts for one fifth of all CO<sub>2</sub> emissions in the EU, with passenger cars responsible for more than half this figure. But despite EU efforts, total emissions by EU road users have increased 22 per cent since 1990, mainly due to the increase in the number of cars on the road, and the length of the journeys taken.

Environmental groups welcomed the commission's commitment to tough action if car makers fail to live up to their responsibility. "The one piece of good news in the commission report is the acknowledgement that legally-binding options to reduce

emissions are now on the table,” said Jos Dings of the European federation for transport and environment. “The existing voluntary commitment with carmaker associations lacks transparency and fails to punish poor performance or reward progress.”

“It’s important that any future legislative proposal holds individual carmakers to account, gives incentives to cut emissions and punishes those that fail.”

But he said that T&E’s own assessment of car makers’ progress, which also includes data from 2005, shows that the commission’s faith in manufacturers’ ability to meet their targets may be misplaced. T&E’s figures suggest that European manufacturers cut emissions by just 1 per cent between 2004/05, while Japanese car makers reduced theirs by 2 per cent. And Korean manufacturers suffered a relapse after their impressive display in 2003/04 with a 1 per cent increase in emissions.

“For the remaining three or four years, car makers will have to reduce the CO<sub>2</sub> emissions and fuel consumption of their products at an annual rate of four to five per cent,” said Dings. “This is unprecedented and three to four times the rate of reduction achieved in previous years.”

Ivan Hodac, secretary general of ACEA, the European automobile manufacturers association, which represents 13 car manufacturers such as Renault, Ford, Fiat and Volkswagen, said that industry was already doing all it could to cut emissions, and that other regulatory measures should be introduced to speed up the process. “There is now a need to link the taxation of cars and of alternative fuels more vigorously to CO<sub>2</sub> emissions. This will be an effective strategy to reduce further passenger car related CO<sub>2</sub> emissions,” he said.

And he challenged the EU’s claims that progress was not being made fast enough. “A particular feature in the year 2004 was the sharp rise in new registrations of cars emitting 120g CO<sub>2</sub>/km or less. From a zero market share in the mid-1990s, such cars achieved a 7.7 per cent share in 2004, with sales of almost one million units.”

#### **24. IEA Says It Is Too Late for European Global Warming Target**

It may be too late to keep within a European Union threshold to avoid dangerous climate change, said the Head of the International Energy Agency Claude Mandil. While the EU agrees that to avoid dangerous interference with the climate, global average temperatures should not exceed 2 degrees Celsius (3.6F) above pre-industrial levels, even the most ambitious plans to reduce greenhouse gases, explored in depth in a recent IEA report, might not be enough to stop such warming, said Mandil.

As part of its role as energy advisor to the 26 leading industrial nations of the world, the IEA set out six scenarios for dealing with global warming in the report on energy technology options,. Mandil said that all technologies available would need to be applied if the energy industry were to create a sustainable future. Those included carbon dioxide capture and storage, increased energy efficiency and more use of biofuels.

“There is no silver bullet,” he said.

“Everyone talks about 2 degrees as if we were on target,” said Kevin Anderson, climate

scientist at Britain's Tyndall Center. "EU and UK rhetoric is relatively strong but the policy is completely inadequate, and they're the best there is." Many academics agree action to curb climate change is too slow, pointing to rising greenhouse gas emissions even as the European Union delivers tough rhetoric on cuts.

The EU's own emissions rose slightly in 2004. Emissions also rose in the United States, the world's biggest polluter, which has not imposed mandatory caps.

"If the priority of climate change stays where it is I am very pessimistic," said Malte Meinshausen from the Potsdam Institute for Climate Impact Research, who has previously advised the European Commission. "If mitigation isn't given a higher priority than we can't achieve 2 degrees."

Average temperatures have already risen by 0.6 degrees since the 1800s, and are expected to rise another 1.4 to 5.8 degrees by the year 2100, the United Nations climate change body says.

Anderson reckons Britain's already ambitious goal of a 60 percent cut in domestic carbon dioxide (CO<sub>2</sub>) emissions by 2050 is based on old science which could lead to a 3 degrees rise. If shipping and rapidly-rising international aviation are included, he calculates Britain's CO<sub>2</sub> emissions in 2006 will exceed those in 1990, a common baseline year for targets.

Britain is still committed to the 2 degrees target, a Department for Environment Food and Rural Affairs spokesman said, but added: "The UK cannot solve climate change alone and the science of climate change is constantly developing."

Scientists and policymakers see two key studies weighing on the politics -- Britain's Stern Review on climate change costs, due out in the autumn, and the Intergovernmental Panel on Climate Change (IPCC) review of science.

The IPCC review, grouping over 2,000 scientists who advise the United Nations, is published in February and is expected to show stronger evidence for climate change and man's part in it. "I think the conditions are just right for this report to make a perceptible impact," said IPCC chairman Rajendra Pachauri. "I think there's enough observed evidence now that certainly will influence the policymakers."

"I've just come back from one of the small mountain states of India, and they regard the melting of the glaciers as the most important problem they're facing. Their entire water supply gets completely distorted."

Talks this year on extending the UN's Kyoto Protocol on curbing emissions beyond 2012 could also focus action. "There is a bit of shadow boxing going on, each group of countries is waiting for what the others are going to do," said Pachauri. "My feeling is that in the next year and a half things will accelerate and perhaps you will see some action."

Hinting at the trouble getting consensus, in its report to the G8 on how to drive emissions cuts, the International Energy Agency (IEA) devoted just one page in a 486-page book to discussing climate change goals. "The IEA is representing member countries with... different views on climate policy, including what concentration levels would be

acceptable, and we didn't get into that at all," said Fridtjof Unander, lead author of the report, published in June.

"What we wanted to do was to demonstrate that by pushing on development and deployment of clean and efficient energy technologies you can really start making a big impact."

Even the report's most optimistic scenario of a 16 percent CO2 emissions cut by 2050 would have a two-thirds chance of exceeding the EU temperature target, estimated Meinshausen.

## **25. Parliament Says Britain Failing on Transport Emissions**

Britain's Department for Transport is not taking climate change seriously enough, with aviation especially threatening long-term goals, Parliament's Environmental Audit Committee said in a new report. Transport was the only British sector where emissions of heat-trapping carbon dioxide (CO2) rose between 1990 and 2004, by 10 percent, while plans for cuts by 2010 would miss earlier forecasts, the Committee said.

In an 85-page report the Committee acknowledged the difficulty weaning transport off high-carbon oil, but saw a failure to make cleaner options like buses and trains affordable, and to promote efficiency-raising technologies.

Transport accounted for some 33 percent of total British carbon emissions in 2004, with road transport alone accounting for 21 percent of the total, and international flights leaving Britain for 5 percent. International aviation was Britain's fastest growing source of emissions, -- up 111 percent in 2004 on 1990 levels -- and the group said this threatened the government's 2050 target to cut CO2 emissions on 1990 levels by 60 percent.

The group urged a rethink of Britain's airport expansion policy and proposed a transport sector-specific target. It also suggested a raft of measures to curb road emissions, including road charging schemes, "eco-driving" to be a part of driving tests, tax incentives, more rigorously enforced speed limits, more thought over future road building, and shifting of road freight to water.

Britain has described climate change as likely the greatest long-term challenge facing the human race, given the threat runaway global warming would pose, without evasive action.

## **26. UK And California Make Climate Change Deal**



Tony Blair with Californian Governor Arnold Schwarzenegger Britain and California are to work together to tackle climate change.

The UK and California will co-operate on reducing greenhouse gas emissions and promoting new clean fuel technologies as part of the deal. They will also "share experiences" and "find new solutions" to address

climate change and promote energy diversity.

As the world's 7th largest economy, California emissions are significant. It was the 12th largest source of climate change emissions in the world in 2005, close to G8 countries such as Canada, Italy and France.

Tony Blair said in a press conference following the talks that "we are at least on our way to putting in place the framework that will resolve this problem."

"There couldn't be anything more important for our children and for the generations to come, and it is a very heavy responsibility we have at this time, knowing what we now know with the science as certain as it is, we have to act and that is the purpose of what we are doing today."

The agreement calls for the United Kingdom and California to evaluate market-based strategies to reduce greenhouse gas emissions, share technological information, and collaborate on economic and scientific studies. For example, Britain will share best practices on emissions trading and lessons it has learned through the European Union's emissions trading program.

"Working together, California and the United Kingdom commit to build upon current efforts, share experiences, find new solutions, and work to educate the public on the need for aggressive action to address climate change and promote energy diversity," the two-page agreement said.

California and Britain also will work with business and environmental leaders and others to develop strategies that "protect the planet, are good for the economy, and provide greater energy security and diversity," the agreement said.

"Climate change is not a typical environmental challenge," California Environmental Protection Agency Secretary Linda Adams said in a written statement. "The potential impacts are far reaching and require the help of problem solvers from around the world."

The announcement followed a roundtable discussion on climate change among more than a dozen top corporate executives. UK-based The Climate Group convened the meeting that included BP's Chief Executive Office, Lord John Browne, Richard Branson of the Virgin Group, Dupont's Charles O. Holliday Jr., and Sergy Brin of Google.

"California will not wait for our federal government to take strong action on global warming," Schwarzenegger said in a written statement. "International partnerships are needed in the fight against global warming and California has a responsibility and a profound role to play to protect not only our environment, but to be a world leader on this issue as well."

Legislation (A.B. 32) pending in Sacramento proposes limits that would enable California to meet aggressive greenhouse gas emissions goals Schwarzenegger established a year ago. An executive order issued a year ago calls for greenhouse gas emissions to be cut by 11 percent (60 million tons) by 2010 and 30 percent (175 million tons) by 2020. The order also established a goal of reducing greenhouse gas emissions by 80 percent by 2050.

## **27. EU Opens Consultation on Hydrogen Vehicles**

On July 13<sup>th</sup>, the European Commission opened a consultation on draft regulations on how to integrate hydrogen fuel vehicles into the EU regulatory framework. According to the proposal, type-approvals for hydrogen-powered vehicle components can be managed the same as current approvals for vehicles powered by liquefied petroleum gas and natural gas. The proposal lists safety tests and specifications for both compressed and liquid hydrogen components. Commission Vice President Günter Verheugen said in a statement, "The proposed measures will facilitate the market introduction of such vehicles [and] could entail a boost for Europe's competitiveness and a significant improvement to the environment." The consultation closes Sept. 15, 2006.

## **28. Italian Moves to Reduce Special Fuel Tax**

On July 19<sup>th</sup>, Italy announced it would reduce a special tax on fuel as part of a plan to help spark growth. The proposal, which would lower taxes on traditional fuel by 10 percent to 33 percent depending on the fuel type, would take effect Jan. 1, 2007. It is part of a wider economic stimulus package designed to soften the impact of rising petroleum prices. The government said the tax break would be removed if petroleum prices fall. The decree is considered final, but it could be amended by a subsequent decree.

## **NORTH AMERICA**

### **29. US Supreme Court to Decide Appeal on Auto Emissions**

The Supreme Court has said it would decide whether a dozen states, three cities and a number of environmental groups can force the US government to regulate car and truck emissions that contribute to global warming. In one of the most important environmental cases in decades, the justices agreed to review an appeals court ruling that the Environmental Protection Agency does not have to regulate the vehicle emissions blamed by most scientists for climate change.

The EPA said in 2003 that global warming has risks but it could not regulate greenhouse gas emissions because Congress had not granted it authority to do so under the Clean Air Act.

In their appeal, the states, cities and green groups said the issues raised by the case merited Supreme Court review and go to the heart of the EPA's legal responsibilities "to address the most pressing environmental challenge of our time." They argued that the head of the EPA does have the authority to regulate carbon dioxide and other air pollutants associated with climate change.

The EPA said it stands behind its decision not to regulate carbon dioxide emissions from cars. Greenhouse gas emissions from the transportation sector, which includes cars, account for about a third of the US total. "The EPA is confident in its decision and will address the issue before the court," an agency spokeswoman said, noting the administration has committed to reducing greenhouse gas emissions through voluntary programs.

The appeal involved Baltimore, New York City and Washington, D.C., along with California, Connecticut, Illinois, Maine, Massachusetts, New Jersey, New Mexico, New York, Oregon, Rhode Island, Vermont and Washington State. Those states and environmental groups said the high court will finally have its say on the Bush administration's decision not to impose mandatory caps on carbon dioxide.

The Bush administration, 10 other states and a group representing electric generating companies wanted the high court to simply reject the appeal and not hear the case. Administration lawyers said the appeals court correctly decided in its ruling last year that the EPA lawfully exercised its discretion in refusing to regulate the emissions.

### **30. Cars Heavier And Faster, But U.S. Fuel Economy Unchanged**

New vehicles in the United States are the fastest and heaviest in three decades, with the fleet's fuel efficiency no better than the figure for 1994 -- about 21 miles per gallon, the government said on Monday, July 17.

The mileage estimate for 2006 passenger vehicles continues a recent trend even though gasoline prices have risen steadily and now average \$3 per gallon, the Environmental Protection Agency said in an annual efficiency report.

Gains from gas-electric hybrid engines and other fuel saving technologies -- mainly seen in compacts, sedans and other cars -- were noted. But these technologies represent a fraction of what is available in showrooms and bigger models continue to blunt efficiency.

Gasoline use accounts for about 40 percent of U.S. daily oil demand that averages close to 21 million barrels, government figures show.

SUVs, pickups and other members of the light truck class average 6 miles per gallon less than cars on average and account for much of the decline in fleet-wide fuel efficiency, the EPA said. For 2006, sedans, wagons and compacts are expected to average 24.6 mpg. SUVs are expected to get 18.5 mpg and pickups 17 mpg.

This year's cars and light trucks are estimated on average to be the heaviest, fastest and most powerful vehicles ever built for everyday passenger use since the EPA began tracking them in the mid 1970s.

Eight major manufacturers account for nearly all sales, but fall into two groups for fuel performance.

- Honda Motor Co. Ltd., Toyota Motor Corp., Hyundai-Kia Co. Ltd. and Volkswagen AG all make vehicles, mainly cars, which average between 23.5 mpg and 24.2 mpg, the EPA found.
- General Motors, Ford Motor Co., DaimlerChrysler AG and Nissan Motor Co. Ltd. all make vehicles, many of which are the most popular SUVs and pickups, which get between 19.1 mpg and 20.5 mpg.

Since 1992, average fuel economy as measured by the EPA has been relatively constant, ranging from 20.6 to 21.4 mpg. This 21.0 mpg value is 5 percent lower than

the fleet-average fuel economy peak of 22.1 mpg achieved in 1987-1988.

### **31. Senate Group Shoots For Middle-Of-The-Road Approach On CAFE**

A bipartisan group of senators has floated a corporate average fuel economy bill that attempts to strike a middle-ground between the policies sought by the Bush administration and more liberal lawmakers, to break a deadlock on the issue that has stalled aggressive action for years.

The bill would give the administration significant authority to overhaul the existing CAFE structure but would also essentially mandate an annual fuel efficiency increase of 4 percent per year for the U.S. fleet. The legislation was introduced by a coalition that includes, among others, Sens. Richard Lugar (R-Ind.), Barack Obama (D-Ill.), Joe Biden (D-Del.) and Gordon Smith (R-Ore.). The group may attempt to move the bill as an amendment to the offshore drilling bill expected on the Senate floor sometime this month, according to several aides to the senators.

If that approach does not pan out, the lawmakers may push to include the language in a potential energy package Senate leaders might craft later this year. It remains unclear whether the new approach will pull in enough votes from both sides of the aisle to finally move a CAFE bill, but supporters of the bill touted it as a way to end the long-standing impasse on the issue.

The Bush administration has asked Congress to give the National Highway Transportation Safety Administration (NHTSA) -- a division of the Transportation Department -- the authority to overhaul the entire CAFE system for cars and has said it would not increase fuel economy requirements without implementing those reforms. The potential changes to the system are likely to closely resemble the changes made to the CAFE system for light trucks, which went to a size-based approach for setting the efficiency standards. The legislation has the backing of both House and Senate Republican leaders and narrowly cleared the House Energy and Commerce Committee two months ago. But the bill has since stalled as Democrats and some moderate Republicans have balked at the measure, arguing for legislation that would mandate a CAFE standard for light trucks of somewhere around 33 miles per gallon. The bill has also yet to see any major activity in the Senate.

At the same time, any legislation that mandates a CAFE increase appears highly unlikely to receive a majority of the votes in either chamber, according to officials tracking the issue. The bill introduced yesterday, however, contains both the authority sought by the Bush administration and responds to the desire of many members of Congress to ensure some type of significant CAFE increase occurs in the next few years.

Specifically, the bill allows NHTSA to establish a size- or attribute-based CAFÉ system as long as it implements at least a 4 percent fuel efficiency increase -- equivalent to roughly 1 mile per gallon -- every year starting with model year 2009. NHTSA can set a lower CAFE increase but only if it can justify that the 4 percent boost is either technologically unachievable, would dramatically affect safety or is not cost effective.

Though the provision seemingly gives the federal government and the industry a way to potentially back out of the 4 percent increase, supporters of the bill argue the new policy



would create a major philosophical change in the way CAFE is implemented.

The bill uses the 4 percent standard because a recent National Academy of Sciences report identified that kind of increase as technologically feasible.

The 4 percent increase would apply only to cars and would maintain the current CAFE system for light trucks through 2012. At that point, the two types of vehicles would be merged into one fleet that would still be subject to the 4 percent increase.

The bill does call for establishment of both multi-year compliance period and credit trading, which would give manufacturers more flexibility to meet the CAFE requirements.

Other provisions in the bill would lift the current 60,000-per-manufacturer cap on the number of customers who can receive a tax credit for purchasing a hybrid vehicle and would provide incentives for manufacturers to retrofit their existing facilities into those that produce advanced vehicle technology.

### **32. OMB-Backed Study Shows Increased Risk From Particulate Exposure**

An alternative analysis of the risks posed by particulate matter (PM) in air requested by former White House regulatory chief John Graham shows that PM may pose even more risks than previously thought, agency air officials say, and supports tightening the agency's proposed PM standard when final standards are issued later this year.

The evidence will almost certainly boost efforts by EPA science advisers, environmentalists and others who are urging Administrator Stephen Johnson to tighten the proposed standard. It could also complicate efforts by several GOP senators opposed to a stricter standard.

In late 2004, the Office of Management & Budget's (OMB) Graham urged EPA to conduct a sophisticated poll of outside scientists called an "expert elicitation" (EE) and incorporate the results into its current PM standard-setting process. The EE is focused on considering the uncertainties surrounding PM mortality estimates, which make up a large proportion of the benefits that stem from all federal regulation, according to government analyses.

The study method was controversial because it generates information from a small corps of experts compared to the extensive evaluation of PM science EPA currently undertakes when revisiting national ambient air quality standards (NAAQS).

Agency sources now say the preliminary results reinforce and even go beyond EPA staff conclusions about PM risks. "The study shows that PM is even riskier than we thought," according to one agency source. And another EPA source says the study "generally supports the view that PM is riskier" than the agency previously estimated.

But the sources add that because the study has not been reviewed by the public and EPA's Clean Air Scientific Advisory Committee (CASAC), the air act only allows the results to be used in the regulatory impact analysis (RIA) which accompanies the PM rules. RIA's detail the costs of control measures on industry, and the health benefits associated with further controls, but can only be used when states consider

implementing PM rules.

As a result, EPA can only formally apply the results of the study to the implementation of new PM rules by states, not in setting the NAAQS standards themselves.

However, the results could provide ammunition for critics of EPA's preliminary decision not to tighten the annual PM standard.

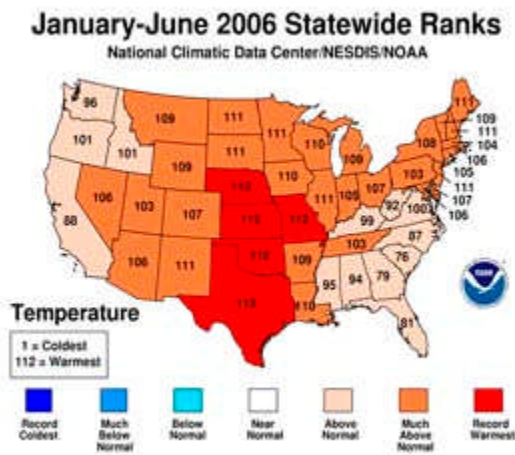
The results from the EE study come after Johnson held a July 12 meeting with scientists who favor stricter PM standards. CASAC has expressed strong reservations about EPA's proposed standards for PM, which are weaker than those recommended by the panel.

The dispute stems from EPA's failure to follow CASAC's 2005 recommendations for tightening its current fine particulate matter (PM2.5) standards. A majority of CASAC members had called on EPA to tighten its current annual PM2.5 standard from 15 micrograms per cubic meter to between 13 and 14, but instead EPA proposed to leave the current annual standard in place while tightening the daily standard. According to the evidence established in the EE, "the standard should be lower than 15," according to a source briefed on the study during last month's Air & Waste Management Association meeting in New Orleans.

EPA's use of EE methods predate Graham's tenure as agency officials solicited expert views of the science backing the agency's lead standards in the early 1990s. The agency is completing a "White Paper" on EE methods for review by a separate panel of the agency's Science Advisory Board this fall.

The current study was based on several workshops designed to ensure the experts use the same terms and include sophisticated probabilistic distributions of their interpretations of the PM-mortality relationship. Agency sources also say a final report of the EE study of PM mortality will also undergo a final peer review.

### 33. First Half of 2006 Is Warmest on Record



The first half of the year was the warmest on record for the United States.

The government reported that the average temperature for the 48 contiguous United States from January through June was 51.8 degrees Fahrenheit or 3.4 degrees above average for the 20th century.

That made it the warmest such period since record keeping began in the National Climatic Data Center.

No state was cooler than average and five states \_ Texas, Oklahoma, Kansas, Nebraska, and Missouri \_ experienced record warmth for the period.

While much of the Northeast experienced extreme rainfall and flooding at the end of June many other areas continued below normal rain and snowfall.

As of June, 45 percent of the contiguous U.S. was in moderate-to- extreme drought, an increase of 6 percent from May.

Dry conditions spawned more than 50,000 wildfires, burning more than 3 million acres in the continental U.S., according to the National Interagency Fire Center.

Worldwide, it was the sixth warmest year-to-date since record keeping began in 1880.

It was the second warmest June on record for global land- and ocean-surface temperatures since records began in 1880 (1.08 degrees F/0.60 degrees C above the 20th century mean) and the sixth warmest year-to-date (January-June) (0.90 degrees F/0.50 degrees C).

**January-June 2006 Statewide Ranks**  
National Climatic Data Center/NESDIS/NOAA



### **34. Bush Pollution Curbs Are Rated Nearly Equal to Clinton's**

The Bush administration's new program to cut harmful pollutants from utilities through a cap-and-trade system will do nearly as much to clean the nation's air as the Clinton administration's effort to make aging power plants install pollution controls when they modernize or expand, a report by an independent scientific panel has concluded.

The report from the National Academy of Sciences represents the latest effort to assess how best to reduce air pollution estimated to cause as many as 24,000 premature deaths each year. The panel concluded that an earlier Bush plan would have allowed pollution to increase over a dozen years, but it found that the administration's more recent Clean Air Interstate Rule (CAIR) -- which targets emissions from power plants in 22 states and the District of Columbia -- would help clean the air over the next two decades.

The CAIR approach aims to reduce nitrogen oxide and sulfur dioxide emissions by 70 percent by 2025 at the latest, according to the Environmental Protection Agency, through a system that would allow utilities to sell and buy pollution credits as long as industry emissions as a whole stayed below a pre-set cap. The Clinton administration had focused on cutting emissions under the 1970 Clean Air Act through a program called New Source Review (NSR), now discarded, which required aging plants to install new, cleaner technology every time they upgraded facilities.

The Bush administration initially proposed changes to New Source Review that would have allowed power companies to modify their plants by as much as 20 percent of their value without installing new controls, a policy the scientific panel said "would be expected to cause an increase" in both sulfur dioxide and nitrogen oxide that would have

been "possibly substantial."

That plan has largely been struck down by the courts, however, so the scientific panel instead looked at the cap-and-trade rule the administration adopted this spring.

The academy committee's chairman, Charles F. Stevens, a molecular neurobiology professor at the Salk Institute for Biological Studies in La Jolla, Calif., said that while the rule would help reduce pollution, "you can't conclude" it would be as uniformly effective as Clinton's approach, because some communities might face serious pollution from aging power plants that chose to buy credits rather than install advanced emission controls.

The report also noted that "because of a lack of data and the limitations of current [computer] models," the panel had difficulty predicting the impact of the program on emissions, public health and energy efficiency.

### **35. EPA Ready To Set Urea Guidelines To Allow SCR Systems**

For the first time, the EPA seems ready to hand drivers the responsibility for making sure a vehicle's emissions system works properly. All emissions systems now are passive and require no owner maintenance but if urea systems are used to remove NOx from diesel exhaust, drivers will have to get involved.

The EPA guidelines are expected to be issued in the next few weeks.

The rules will address the main problem regulators have with urea that the system won't work unless an on-board urea tank is replenished. Otherwise, the vehicle won't meet NOx emissions standards. The EPA is considering rules that will require the vehicle to eventually stop running if drivers don't keep the tank filled.

Karl Simon, the EPA's assistant director for the office of transportation and air quality, said the agency is focusing on an early-warning system that notifies drivers when the urea tank is low. The agency also is considering an inducement that forces drivers to refill the urea tank - for example, preventing the engine from starting if the tank is empty or automatically locking the fuel filler door until the urea supply is replenished.

The agency says automakers will have to make it easy for drivers and technicians to identify when the urea tank is low and refill it.

Simon says the EPA also is focusing on:

- Ensuring the urea system is tamperproof and can't be disabled. Since urea is injected into the vehicle's exhaust system, the engine runs normally without it.
- Assuring that the system works in cold weather. Urea freezes at about 11 degrees Fahrenheit.
- Widespread availability of urea. It could be sold at auto parts stores, quick lube shops, dealership service departments and gas stations.

- Assurance that the urea refill interval is at least as long as the manufacturer's oil change interval so both items can be serviced at the same time by the dealership.

The EPA guidelines will be issued as early as October, said Margo Oge, director of the EPA's Office of Transportation and Air Quality. Oge would not talk specifically about the guidelines but she said disabling the car's engine when the urea tank is empty is a possibility. Automakers oppose preventing the engine from starting when the urea tank is empty, citing safety issues.

Oge says the EPA doesn't want to endanger drivers by having their engines turn off when the urea tank runs dry but the EPA cannot allow vehicles that do not meet emission standards to be driven.

Cost-effectiveness is a key reason most automakers are working on urea systems. According to press reports, Kevin McMahon of the Martec Group, a Detroit research and consulting firm, said it should cost automakers about \$880 to equip a diesel-powered vehicle with a urea system. The alternative, McMahon, said is a NOx trap in the exhaust system that costs about \$1,400.

### **36. Canada Aligns Diesel Fuel Sulfur Standard With U.S. Approach**

On July 12<sup>th</sup>, Environment Canada published final regulatory amendments to reduce the allowable level of sulfur in diesel fuel for on-road use and to harmonize Canada's regulatory approach with that of the United States. The amendments to the Sulfur in Diesel Fuel Regulations will provide additional flexibility in moving to a new maximum of 15 milligrams of sulfur per kilogram of diesel fuel from the current standard of 500 milligrams per kilogram, the department said in a regulatory impact analysis statement published with the amendments in the July 12 Canada Gazette, Part II.

The amendments permit a slightly higher sulfur limit of 22 milligrams per kilogram for sales of on-road diesel fuel during a 45-day period from Sept. 1, 2006 to Oct. 15, 2006, after which the final standard will take effect, it said. "These amendments will maintain continued alignment of diesel fuel sulfur standards, in both level and timing, with the recent change made by the U.S. Environmental Protection Agency," it said. "The EPA notes that the changes will not reduce the environmental benefits from its clean diesel program. This will also be true in Canada."

The Sulfur in Diesel Regulations, finalized in July 2002, matched EPA requirements for the 15 milligrams per kilogram standard to take effect June 1, 2006, for production and imports of diesel fuel and Sept. 1, 2006, for sales of diesel fuel, the department said. However, EPA subsequently determined that facilities at the consumer end of the fuel distribution system required additional time to fully eliminate higher-sulfur diesel fuel from their inventories, and provided a 45-day period with an interim standard of 22 milligrams per kilogram to permit that transition, it said.

"Environment Canada considered making no changes to the regulations. However, such a situation could result in temporary disruptions in the supply of on-road diesel fuel during the transition to 15 milligrams per kilogram sulfur diesel fuel, leading to potential higher diesel fuel prices in Canada," it said. The regulations were published in the April 1, 2006, issue of the Canada Gazette, Part I, in draft form, but no submissions were

received during the 60-day public comment period.

### **37. Connecticut Governor Signs "Clean Cars Bill" Into Law**

Recommitting Connecticut to cleaner air and more fuel-efficient cars, Governor M. Jodi Rell has signed "An Act Concerning Clean Cars" into law. "Cleaner running cars will mean cleaner air for all of us," said Governor Rell during the bill signing ceremony. "This law represents another step toward a cleaner environment and demonstrates Connecticut's commitment to building a more secure energy future for our state. This is not, however, the final step. I am confident that we will craft a bi-partisan comprehensive plan to ease the escalating costs of energy."

Under the new law, a label must be affixed to vehicles detailing the vehicle's greenhouse gas score, its score as compared to others of the same make and year, and the average score for vehicles within the same class. This will begin October 1, 2007.

The Environmental Protection Agency rates cars on a scale of zero to 10, where a score of 10 represents the lowest amount of greenhouse gases (GHG) emitted. The score is determined by the vehicle's estimated fuel economy and its fuel type.

Energy-related carbon dioxide emissions, resulting from petroleum and natural gas, represent 82 percent of total U.S. human-made greenhouse gas emissions.

The labeling program will be funded through a \$5 fee on new car registrations beginning January 1. The Department of Motor Vehicles will deposit these fees into the federal Clean Air Act account, which will provide ongoing funding for the GHG labeling and public education programs.

This law bars the sale or lease of a 2009 or later model year motor vehicle without the required GHG label. It also applies to vehicles with a gross vehicle weight rating of 10,000 pounds or less.

"We are currently making steady progress in the areas of energy conservation and environmental protection," Gov. Rell continued. "Recently, Connecticut along with six other states supported a Regional Greenhouse Gas Initiative, and adopted regulations to implement the second phase of the California Low Emission Vehicle program.

"We are also bringing cleaner and more fuel efficient cars to the State of Connecticut. We recently purchased 575 alternative fuel and hybrid vehicles for our Fleet Operations. Some of these new cars will get up to 60 miles to the gallon and help us protect our environment."

### **38. Study Concludes That Hybrid Cars Will Pay for Themselves Over Time**

Some hybrid cars will pay for the premium added to their sticker prices because of high gas prices and tax credits from the US government on the more fuel efficient vehicles, a new study shows.

Hybrid cars and trucks, which get improved mileage in city driving by running on a combination of gas and electric power, cost between US\$1,200 and US\$7,000 more

than traditional versions of the same vehicles, according to auto Web site [www.Edmunds.com](http://www.Edmunds.com). But a fuel economy study by Edmunds.com showed that the scales were starting to tip in favor of hybrids. "High gas prices and generous tax credits now offset the high sales prices of some hybrids, assuming owners keep their hybrids for a few years," said Alex Rosten, an analyst with Edmunds.com.

Hybrids currently account for 1 percent of new car sales in the United States. But Japan's Toyota Motor Corp., the hybrid market leader, sees its annual hybrid sales topping 1 million units soon after 2010.

The consumer-focused Web site said that assuming vehicles were driven 15,000 miles per year and gas was priced at US\$3 per gallon, owners of the Toyota Prius and Ford Motor Co.'s Escape Hybrid would break even within three years. Buyers of the Saturn Vue Green Line from General Motors Corp., the Toyota Camry and the Civic Hybrid from Honda Motor Co. would break-even within six years, Edmunds.com said.

But federal tax credits for hybrid buyers are being phased out on the most popular models. Under a provision of the tax code, buyers of a Toyota hybrid after Sept. 30 will only qualify for half of the tax credit for which they would have previously qualified.

Tax incentives will also be cut on other hybrids after auto makers sell 60,000 of the vehicles -- a sales threshold Toyota has reached.

The tax credit on Toyota and Lexus hybrids is scheduled to drop to 25 percent in April 2007 and then be eliminated in October 2007.

### **39. California on Brink of Global Warming Breakthrough**

California is forging ahead with the most aggressive US program to reduce global warming based on a plan developed under the leadership of Gov. Arnold Schwarzenegger. Both the governor and his state's Democratic-led legislature want to make California -- the world's eighth largest economy -- a model to follow with caps in greenhouse gas emissions.

State politicians still are hammering out differences over the proposed Global Warming Solutions Act. If passed, it is likely to play a role in November's vote for governor and in national politics for years to come.

Schwarzenegger -- branded "very green for a Republican" by the conservation group Sierra Club -- became an overnight hero for environmentalists a year ago by setting a goal to cut California's emissions to 1990 levels by 2020. More recently, he accused fellow Republicans in Washington of lacking leadership on the environment as he signed a global warming accord with British Prime Minister Tony Blair (see report above).

"We have a pretty brave governor who feels we should take the lead," said Linda Adams, a Democrat Schwarzenegger chose to run California's Environmental Protection Agency.

The Democrats say their bill gives the governor's 2020 target "teeth" with an enforceable cap on emissions and mandatory reporting for top polluters like energy companies. If Schwarzenegger vetoes the bill because he wants a more business-friendly version,

then the Democrats can use it against him in his reelection bid.

Schwarzenegger practiced his balancing act while campaigning on Wednesday by saying the bill will be a "compromised version." "Some environmentalists will say 'this is not perfect' and there will be other people in the business community who will say 'this is not perfect'."

California is an environment-savvy state where being green wins votes. But it is also the world's 12th largest emitter of heat-trapping gases like carbon dioxide. It faces environmental and health disasters with warmer temperatures. Meanwhile, the population is projected to grow from 35 million today to 55 million in 2050.

EPA secretary Adams is pushing for a more market-based bill to give business tools to meet goals with "no intent to let any sector or company off the hook." She believes "chances are very high" Democrats will pass a bill the governor can sign by the end of session on Aug. 31.

Bill co-sponsor and Assembly Speaker Fabian Nunez, who is working for the election of Schwarzenegger's opponent Phil Angelides, denied playing politics with the environment by putting the incumbent on the spot before the election. "We will send a bill he can sign and we want to champion it across the country," said Nunez, who predicted no Republican member of the California legislature would vote in favor. And that momentum, Nunez said, could help the Democrats in 2008.

#### **40. US Northeast States to Act on CO2 Where Bush Won't**

Seven northeastern US states have agreed on a model rule that would create the country's first market for heat-trapping carbon dioxide by curbing emissions at power plants. The agreement, called the Regional Greenhouse Gas Initiative, is relatively weak compared to the European Trading Scheme, the emissions trading program set up by the European Union to meet its obligations under the Kyoto Protocol on global warming.

But one expert said it was a landmark agreement that may help force the federal government to take action on reducing greenhouse gases. "It's a good first step, but the road is pretty long, and we are going to need substantive greenhouse gas reductions," said Peter Fusaro, a carbon markets expert and the CEO of Energy & Environment Capital Management LLC in New York. "The limits are mild, pretty negligible," he added.

States in the western US such as California are also trying to form regional regulations on greenhouse gas emissions. Fusaro said both regions hope that companies that could face emissions reductions on each coast would lobby for national regulation.

The RGGI would cap carbon dioxide emissions at about current levels at power plants from 2009 until 2015. Emissions at the plants would then be gradually reduced by 10 percent by 2019. The first round of the Kyoto pact requires developed countries to cut greenhouse emissions by 5.2 percent of 1990 levels from 2008 to 2012.

The northeastern states have been working to regulate emissions because the US federal government places no mandatory limits on the gases most scientists believe cause global warming.



The states participating in RGGI are Connecticut, Delaware, Maine, New Hampshire, New Jersey, New York and Vermont. Maryland recently adopted legislation requiring the state to join RGGI by June 2007. The states now each have to approve the model rule.

#### **41. Wagoner Says Fuel Cells In Limited Production by 2010**

Despite a painful restructuring, General Motors is keeping the pedal to the metal in its goal to have hydrogen fuel cell technology ready for production by 2010 according to reports in Automotive News. GM CEO Rick Wagoner said at the Traverse City Symposium that the company's latest fuel cell vehicle, the Sequel, will be ready for testing in about a month.

GM is spending an estimated \$100 million per year to develop fuel cell vehicles. "We still believe fuel cells represent the best long term opportunity to reduce our dependence on foreign oil," Wagoner said at the Management Briefing Seminars.

Most major automakers are working to develop fuel cell vehicles. But only GM believes the technology can be ready for mass production -- in the hundreds of thousands of units -- by 2010. Other automakers think fuel cells will be practical, in terms of cost and performance, by 2015 at the earliest.

But Wagoner said the GM Sequel, first shown at the 2005 Detroit auto show, will have a driving range of at least 300 miles. "We're making excellent progress," said Wagoner.

On other topics, Wagoner said:

- GM is getting ready to "ramp up a major assault on hybrids." The Saturn Vue Greenline, a mild hybrid priced at around \$22,000, is on its way to dealers. Wagoner said the vehicle is the first hybrid designed for consumers on a tight budget.
- "You have to be don't be rich to be green," Wagoner said.
- GM has received an order for an additional 100 diesel-electric hybrid city buses.
- The automaker will continue to spread fuel saving technologies such as 6-speed transmissions and its cylinder cutoff system across its vehicle lineup.

#### **42. GM, BMW, Daimler to Invest US\$1 Billion in Hybrid Project**

A research alliance consisting of General Motors Corp., BMW AG and DaimlerChrysler AG plans to invest over US\$1 billion in the development of a new hybrid transmission and related systems that backers say will leapfrog the market-leading technology now offered by Toyota Motor Corp. The three automakers have about 500 engineers who have been working for the past 18 months on the joint development of the next-generation hybrid engine technology, which combines a battery-powered electric motor with a conventional gasoline combustion engine, company representatives reportedly said on the sidelines of an industry trade meeting.

The so-called dual-mode hybrid technology that has been under development by the consortium includes an onboard fuel-optimization computer that determines when and at what speeds the two motors will be used for power and how the on-board battery will be recharged.

Development of the transmission -- the core of the project -- is expected to cost about US\$300 million for the partners, said Andreas Truckenbrodt, executive director of DaimlerChrysler's hybrid programs. The remainder of the investment represents the cost of integrating the new hybrid system with other vehicle components.

The hybrid engine will be made available in two rear-wheel drive configurations or a front-wheel drive system, said representatives of the joint development project.

Depending on the requirements of the market and the automaker, the system can be adjusted to provide either improved value or high performance, they said.

"We believe that our two-mode hybrid is the best of the hybrid systems," Truckenbrodt said. "I think all three of us can say it's truly amazing what you can get out of if you bring wild, dedicated engineers together."

DaimlerChrysler plans to use the new hybrid system in its 2008 Dodge Durango sport utility vehicle. GM will use the hybrid in versions of the Tahoe and Yukon SUVs it plans to make available at the end of 2007. BMW has not committed to a timetable for using the new engine system, but has said that it will make vehicles available with the upcoming hybrid engine system over the next three to five years.

Truckenbrodt and representatives of both GM and BMW said a collaborative development effort on an expensive emerging technology such as hybrid transmissions would become increasingly common in the auto industry as companies look to share such costs.

"It's an expensive venture," said Larry Nitz, executive director of GM's global hybrid powertrain development. "But working together not only shares the cost but improves the (product). Working together we were able to pick the highest bar."

### **43. DaimlerChrysler Weighs New Engines, US Investment**

DaimlerChrysler AG is considering launching a new group of more fuel-efficient V-6 engines that would result in a "significant investment" in three US plants, Chrysler Group Chief Operating Officer Eric Ridenour has announced. Ridenour said that if the program was approved by the parent company's board, the all-aluminum new line-up of engines, would replace the current V-6 engines now being used in Chrysler Group vehicles.

The new engines would be made available with fuel-saving technology like variable valve timing, providing better fuel economy at a time when that has become a crucial consideration for US consumers, Ridenour said. "Gas prices are sending some consumers away from high-profit trucks and large SUVs to cars and compact SUVs," he said. "For automakers that have relied on those high-margin products for their bread and butter -- like the Chrysler Group did in the past -- the shift to smaller and more fuel efficient vehicles is serious business."

Ridenour, in a speech to industry executives at the Management Briefing Seminars, said the development of the new family of V-6 engines would draw cost-savings lessons from Chrysler's collaborative World Engine program. That group of four-cylinder engines was jointly developed with Mitsubishi Motors Corp. and Hyundai Motor Co. Ltd.

Ridenour declined to provide any detail on the timing or scale of the potential new engine investment. "We're still building the business case for this one," he said. Automotive News reported last month that Chrysler would launch a new V-6 engine by 2010 with a US\$2 billion investment.

Ridenour said that Chrysler's upcoming vehicle launches, including eight over the remainder of 2006, were mostly targeted at the growing market for cars and smaller SUVs.

Chrysler, Ridenour said, would continue to push a range of alternatives to traditional gasoline combustion engines, including clean-burning diesel. "We believe in a combination of biofuels, diesels, hybrids, fuel cells and advanced gasoline engines," Ridenour said. "No one technology will win the day."

Chrysler Group has sold over 1.5 million vehicles capable of running on ethanol-based fuels, but most consumers are unaware that those vehicles can run on the gasoline alternative, he said. Ridenour said Chrysler would join General Motors Corp. in equipping its ethanol-capable vehicles with a bright yellow fuel cap beginning in 2007 to let drivers know they can opt to fill up with E-85, the ethanol-based fuel. Chrysler, GM and Ford Motor Co. have joined a coalition of farmers and others who argue that wider use of E-85 could sharply reduce the US reliance on imported oil.

Ridenour said Chrysler was on track to announce a partner to build a new compact car for the North American market by the end of the year. The decision on Chrysler's partner would dictate how quickly the new small car could be brought to the market. "Every business case will weigh out and speed is clearly one of the parameters," he said.

Ridenour did not expect the US market for subcompacts would grow to overtake the market for sedans; wealthier and older buyers would likely still opt for bigger vehicles. "For the US there tends to be a correlation between the ability to pay and the size of the vehicle."

#### **44. President Clinton Launches Clinton Climate Initiative**

President Clinton has launched the Clinton Climate Initiative (CCI), a Clinton Foundation initiative dedicated to making a difference in the fight against climate change in practical and measurable ways.

President Clinton and London Mayor Ken Livingstone sign the climate accord, with British Prime



Minister Tony Blair, Los Angeles Mayor Antonio Villaraigosa, and San Francisco Mayor Gavin Newsom looking on.

President Clinton was joined by London Mayor Ken Livingstone, Los Angeles Mayor Antonio Villaraigosa and San Francisco Mayor Gavin Newsom to announce the first project of CCI, a partnership between the Clinton Climate Initiative and the Large Cities Climate Leadership Group. The Large Cities Climate Leadership Group, chaired by the Mayor of London, is an organization comprised of most of the largest cities in the world that have pledged to reduce greenhouse gas emissions.

Urban areas are responsible for over 75% of all greenhouse gas emissions in the world. Therefore reducing energy use and greenhouse gas emissions in cities is fundamental to any effort to slow the pace of global warming.

“It no longer makes sense for us to debate whether or not the earth is warming at an alarming rate, and it doesn’t make sense for us to sit back and wait for others to act,” said President Clinton. “The fate of the planet that our children and grandchildren will inherit is in our hands, and it is our responsibility to do something about this crisis. The partnership between my Foundation and the Large Cities Climate Leadership Group will take practical and, most importantly, measurable steps toward helping to slow down global warming, and by taking this approach I think we can make a big difference. I commend Mayor Livingstone and the Large Cities Group for their leadership on this issue.”

Last October, London convened a meeting of large cities to discuss cooperation on addressing global warming. The Large Cities Climate Leadership Group recognized the need for action and cooperation on reducing greenhouse gas emissions and pledged to work together towards that end.

The Mayor of London, Ken Livingstone said: “There is no bigger task for humanity than to avert catastrophic climate change. The world’s largest cities can have a major impact on this. Already they are at the center of developing the technologies and innovative new practices that provide hope that we can radically reduce carbon emissions.

“Former President Clinton and his Foundation have proved that they can intervene decisively to make a real impact on one of the world’s biggest problems, AIDS. On behalf of the Large Cities Climate Leadership Group, I am delighted to be able to enter into this new partnership to rapidly accelerate cities’ response to global warming. Our aim is simple – to change the world.”

The Clinton Climate Initiative will assist the large cities in the group in reducing greenhouse gas emissions and increasing energy efficiency by using the same business-oriented approach that has made other Clinton Foundation initiatives successful. The Clinton Foundation has made a major contribution to the global fight against HIV/AIDS over the past four years by building efficient and effective systems for procurement and distribution of medicine and tests, thus drastically reducing the cost of treatment. More recently, the Clinton Foundation used the same business-oriented approach to make strides against childhood obesity, working with major beverage manufacturers to take high-sugar drinks out of the nation’s schools.

To enable partner cities to reduce energy use and green house gas emissions CCI will:

- Create a purchasing consortium that will pool the purchasing power of the cities to lower the prices of energy saving products and accelerate the development and deployment of new energy saving and greenhouse gas reducing technologies and products. This will be similar to the Clinton Foundation HIV/AIDS Initiative total quality management approach that has substantially lowered AIDS drug prices for members of its purchasing consortium.
- Mobilize the best experts in the world to provide technical assistance to cities to develop and implement plans that will result in greater energy efficiency and lower greenhouse gas emissions.
- Create and deploy common measurement tools and internet based communications systems that will allow cities to establish a baseline on their greenhouse gas emissions, measure the effectiveness of the program in reducing these emissions and to share what works and does not work with each other.

Many cities have worked individually to reduce energy use and greenhouse gas emissions but most of these practices are not in widespread, systematic or coordinated use, thus greatly reducing their effectiveness. CCI will engage the largest cities in the world and allow them to be leaders for all cities by making the direct benefits from the purchasing consortium, technical assistance, and measurement and communication tools available to other cities throughout the world.

There are a number of practical steps cities can take to increase efficiency and reduce emissions including:

- More energy efficient lighting for traffic and street lights.
- Building codes and practices that make use of more effective insulation, more energy efficient windows, more energy efficient heating and ventilation systems and more energy efficient lighting.
- More energy efficient municipal water and sanitation systems
- Localized, cleaner electric generation systems
- Use of bio-fuels or hybrid technologies for city buses, garbage trucks and other vehicles
- Schemes to reduce traffic congestion
- Reduction of emissions from city garbage dumps and the use of biomass to generate electricity
- More intelligent design of electric grids both across the city and within office and municipal buildings

The CCI—Large Cities partnership begins with 22 of the largest cities in the world participating – Berlin, Buenos Aires, Cairo, Caracas, Chicago, Delhi, Dhaka, Istanbul, Johannesburg, London, Los Angeles, Madrid, Melbourne, Mexico City, New York, Paris, Philadelphia, Rome, Sao Paulo, Seoul, Toronto, Warsaw and the partnership anticipates that many more cities will join over the next four to six months.

#### **45. US Court Hands EPA a Win in Utility Emission Case**

A federal court has ruled that a big US utility must install necessary pollution-reduction equipment at its aging coal-powered electric plants if it expands them, handing a victory to the US government in a case that could shape an upcoming Supreme Court ruling.

The three-member 7th Circuit Court of Appeals in Chicago ruled that Cinergy must install emission curbs at its coal-powered plants in the Midwest if it expands them to prolong their operating lives.

The Environmental Protection Agency had sued the utility to force it to apply for an expansion permit, which would trigger emission-reduction measures.

In a bevy of cases, US utilities are testing how far they can go to expand aging plants without triggering a section of the Clean Air Act known as "New Source Review."

Cinergy, which was bought by Duke Energy Corp. in April, argued that it could expand its plants without triggering regulations as long as the modifications did not increase hourly emissions. The court disagreed and said Cinergy's interpretation could "open a loophole that would allow pollution to soar unregulated" because annual emissions could rise even as hourly rates stayed level.

The Bush administration has proposed a similar test for measuring whether plant modifications should trigger New Source Review requirements going forward, but the Supreme Court is reviewing the rules in a case brought against Duke Energy. The high court will hear arguments in the case on Nov. 1.

#### **46. Rise in Illegally Imported Engine Parts Spurs U.S. Crackdown**

U.S. federal agencies have seized and prevented the import of more than 11,000 illegal parts for gasoline and diesel-powered vehicles and equipment over the last nine months, the U.S. Environmental Protection Agency said on July 14. EPA and U.S. Customs and Border Protection blocked the entry of the substandard equipment including tractors, lawn and garden equipment, off-road motorcycles, all-terrain vehicles, and electric generators, according to EPA. More than \$798,000 in EPA civil penalties has been assessed against the importers, in addition to U.S. Customs penalties and storage fees.

EPA said there had been a recent and dramatic increase in imports of gasoline and diesel equipment, chiefly from China, that do not meet government standards.

Consumers should look for an emissions label before buying engines or equipment, EPA said. If the label is missing, the equipment is most likely an illegal import. Customs inspectors have been trained by EPA on how to identify illegal imports, particularly missing emissions labels.

The Clean Air Act requires new gasoline and diesel engines sold or distributed to meet EPA emissions requirements to protect public health and the environment from air pollution. Mobile sources of air pollution, including cars, trucks, outboard motors, and construction equipment, produce over half the air pollutants in the United States.

#### **47. GAO Faults EPA As Too Slow In Cutting Pollution**

The government is failing to reduce health risks from toxic air pollution as required by law, congressional investigators said Wednesday. The Environmental Protection Agency has not met 30 percent of the Clean Air Act's requirements and regularly misses deadlines, they said.

EPA scientists issued their own report Wednesday, saying the agency should consider tightening its national health-based standards for smog-forming ozone to a level similar to California's, though not as restrictive as what the World Health Organization recommends. They said the risks of asthma and other respiratory ailments are greater than previously believed. EPA is under court order to propose a decision on this by next March. The California state standard is 0.07, though – unlike the federal standard – it does not permit several dirty-air days a year. The World Health Organization has recommended guidelines of 0.05.

The Government Accountability Office, the investigative arm of Congress, said the EPA largely has failed to regulate air pollutants from small sources. The GAO report said the EPA has not yet met 239 of the law's requirements; of those the EPA did fulfill, only 12 were on time. "EPA has not reduced human health risks from air toxics to the extent and in the time frames envisioned in the Act," according to the GAO report.

Senators James Jeffords, I-Vt., a senior member of the Senate Environment and Public Works Committee, and Lincoln Chafee, R-R.I., and 13 Democrats in the Senate and the House requested the report.

Separately, a panel set up by the United States, Canada and Mexico reported Wednesday that pollution in North America fell by 15 percent from 1998 to 2003. The top 10 chemicals emitted in the three nations were hydrochloric acid, methanol, sulfuric acid, hydrogen fluoride, toluene, styrene, xylenes, n-hexane, methyl ethyl ketone and carbon disulfide.

Some, such as toluene and xylenes, come from mobile sources, open burning or asphalt paving; hydrochloric acid and other chemicals come from coal-fired utilities.

Jeffords and some Democrats said the GAO report shows the EPA is allowing people to be unlawfully exposed to health risks such as cancer, reproductive damage and birth defects.

## **ASIA PACIFIC**

### **48. Japan Plans Ethanol Pilot Programs**

Japan is preparing to launch a pilot program to build ethanol production and distribution infrastructure, government officials announced on June 20<sup>th</sup>. Current laws allow the mixing up to 3 percent of ethanol in gasoline, but high ethanol prices and a lack of infrastructure mean that distribution of the alternative fuel has been negligible, according to a Ministry of Economy, Trade, and Industry official. The new project calls for the intensive development of ethanol infrastructure on Miyako Island, Okinawa. The Environment Ministry and the Ministry of Agriculture, Forestry, and Fisheries will seek funding to build the needed infrastructure in the fiscal 2007 budget. The plan calls for building facilities to produce 700 kiloliters of ethanol annually from sugar cane grown on the island, which the government will then purchase and distribute.

### **49. Japan to Require Public Purchases To Focus on Energy Efficiency**

Prime Minister Junichiro Koizumi's ruling Liberal Democratic Party is drafting legislation that would require government offices to make energy conservation rather than low prices and costs a priority in procuring goods and services, LDP secretariat officials said on June 22<sup>nd</sup>.

Legislative work is currently being done by Yoriko Kawaguchi, a former environment minister, and other pro-environment LDP lawmakers. They plan to submit legislation for a new law to the special Diet (parliament) session to be convened in late September, an aide to Kawaguchi said.

The procurement measure would be another key policy to help Japan reduce its greenhouse gas emissions, the LDP officials said.

The current Green Procurement Law encourages government offices to purchase pencils, notebooks, and other stationery and disposable products made from recycled materials, but it does not cover procurement activities relating to energy conservation.

Another law, the Accounting Law, stipulates rules for government offices in purchasing goods and services. For example, the Accounting Law requires procurements exceeding a certain contract sum threshold to be subject to competitive bidding; it also requires the lowest successful bids to be awarded contracts. The planned legislation, a "bill on environment caring contracts," would require central government offices and governmental corporations to make purchases that are the most energy-efficient, rather than purchasing the lowest-priced or lowest-cost good or service, as is currently required for government procurement, the aide said.

Central government offices procure cars, office equipment (including personal computers), large computers, electricity, gas, water, fuels, and a broad array of products and services from the private sector. The draft legislation, for example, asks government offices to purchase cars to be used as government limousines by calculating the cost of the cars plus gasoline consumption during the lives of the cars, as well as the aggregate greenhouse gas emissions from the manufacture and the use of the cars.

Since the price differences between conventional gasoline-powered vehicles and gasoline-electric hybrid cars are narrowing to between \$2,000 and \$3,000, government offices are likely to purchase more hybrids than they purchase now, Kawaguchi's aide said.

In electricity procurement, the legislation requires government offices to add the reduction cost of greenhouse gas emissions discharged in the process of generating electricity. Since generating electricity from nuclear, windmill, hydroelectric, and geothermal power emits fewer greenhouse gases compared with thermal power stations, this is expected to encourage government offices to purchase environment-friendly power.

In the services procurement sector, the legislation would require that government offices to award public works contracts to contractors that can build the most energy-efficient structures that use solar power, better insulation, and other energy conservation features.

## **50. First Fuel Cell Buses Running On Beijing Roads**



Emission-free fuel cell buses, which could help Beijing solve its power shortage and pollution problems, have begun their rounds in the city. The three buses will run from 9 am to 3pm during weekdays, following an 18.2 kilometer route through the northwest suburbs, from the North Gate of the Summer Palace to Wudaokou.

The DaimlerChrysler buses were purchased with United Nations grants to help China research and develop environmentally friendly vehicles. Altogether only 36 DaimlerChrysler fuel cell buses are running worldwide.

The buses are powered by hydrogen fuel cells, which produce no exhaust emissions. A hydrogen refueling station, to be fully operational this summer, will also be the first of its kind in China.

The buses are running under a demonstration project to show fuel cell buses can be used commercially throughout the country, jointly launched by UNDP China, the Ministry of Science and Technology and other partners.

Three fuel cell buses will also be introduced in Shanghai late this year, said Wang Ju, director of the demonstration project office. Wang said that, with international aid, Chinese scientists and researchers would collect data on the buses' success to support efforts to commercialize fuel cell technology.

The transport sector, which relies almost entirely on fossil fuels, is expected to account for most of China's oil demand over the next 20 years.

### **51. Mercedes-Benz Promoting Diesel Cars In China**

Mercedes-Benz is about to start the production of its E-Class business saloon in Beijing. To promote diesel technology in China, a fleet of E-Class diesel cars will be driven over a trans-continental journey from Paris to Beijing.

The fleet which starts from Paris on October 21st consists of 33 series-production E-Class diesel models, some with 4-MATIC, the all-wheel-drive. Among 30 E 320 CDI models, the fleet includes three E 320 BLUETEC cars.

The drive spans a total distance of 13,600 kilometers, crossing the borders of eight countries. It will finish in Beijing where the teams are expected to arrive in 26 days, on November 17th.

The Beijing Bureau of Environmental Protection (EPB) has discouraged diesel cars because they emit at least three times more NOx and many times more PM than a comparable gasoline fueled car. While new diesel cars in 2007 will likely be required to meet Euro 4 standards and be fueled with diesel containing a maximum of 50 ppm sulfur, the Beijing EPB is considering additional measures to discourage diesels.

The global diesel market share is expected to rise from the current 18% to nearly 30% in 2015, said Mercedes-Benz.

### **52. Karachi Pollution Crosses Tolerable Limits**

The air and water pollution levels in Karachi have crossed national and international environment quality standards posing serious threat to the lives of 12 million residents of the city. In a report prepared by the Pakistan Space & Upper Atmosphere Research Commission (Suparco), scientists have warned the government to take immediate measures to check the factors responsible for deteriorating environment.

The research report, which was prepared for the city government, also warned that the metropolis had already reached the critical sustenance limits of pollution on roads.

The scientists stated: "The impact of a reduced oxygen level on roads is already apparent from the blood picture of the people residing in or making a living at various traffic intersections. Any addition of a polluting system or technology that may increase the concentration of the pollutants by a mere 1 micro gram per cubic meter ( $\mu\text{G}/\text{m}^3$ ) is likely to be catastrophic.

"Accordingly further addition of automobiles to the existing fleet of vehicles should be stopped forthwith," the scientists of the prime research body recommended.

Suparco conducted a survey over a period of six months last year for the transport and communication department of city government, under a project 'Feasibility Study and Development of Transportation Control Plan of Karachi Metropolitan', final report of which was recently submitted to the city government. The main tasks assigned for the project included creation of baseline on status of pollution on the corridors of vehicular traffic in Karachi by measurement of level of pollutants viz. Sulfur dioxide ( $\text{SO}_2$ ), carbon monoxide (CO), carbon dioxides ( $\text{CO}_2$ ), ozone ( $\text{O}_3$ ), nitrogen oxides ( $\text{NO}_x$ ), particulate matter ( $\text{PM}_{10}$ ), hydrocarbons (methane and non-methane) in ambient air and noise level.

Suparco also assessed the impact of vehicular traffic on the physical environment through surveys on quality of air, groundwater, wastewater, soil and vegetation at designated intersections across the city.

Assessment of impact on the living environment was also done by collecting samples of tree leaves and blood samples from volunteers working or making a living at 26 designated intersections.

Some of the factors that contributed to the overall mismanaged system and needed to be removed, according to scientists, were lack of infrastructure facilities; majority of vehicles being not road-worthy; large sections of roads being not vehicle worthy; poor standard of vehicle maintenance; limited use of fuel-efficient technologies.

The report also held that the existing government policies were not directly addressing provision of efficient mass transit system or fuel efficiency and emissions issues.

There is, therefore, an urgent need to improve fuel efficiency of vehicles; monitor the performance of vehicles on road by emission related testing/tuning procedures; introduce a well-managed transportation plan; introduce new vehicles only if they are fuel efficient; set up workshops for emission related tuning of all vehicles. Vehicles, old or new, should be allowed to run on city roads after checking for their emission-related efficiency, it was further stressed.

Suparco's report said that the environmental conditions on road and transport sector had deteriorated considerably and would likely to continue deteriorating further while policies and standard operating procedures for checking the unabated deterioration of environment were non-existent.

It was further said that there was a dire need to develop a 'Transport Pollution Control Plan' for environmental up-gradation and to arrest colossal damage and loss to life and property of the citizens due to vehicular traffic.

According to the research report, the peak SO<sub>2</sub> concentration of 40ppb (parts per billion) was noted at Garden Road and Preedy Street intersection and Burns Road intersection, while the maximum NO<sub>x</sub> concentration of 239ppb was recorded at Burns Road intersection.

The maximum CO concentration of 17ppm was noted at Empress Market.

The area around FTC was found with maximum concentration of ozone (i.e. 43ppb) while the maximum PM<sub>10</sub> concentration of 480µg/m<sup>3</sup> was found at Korangi Road and Baloch Colony bypass intersection.

Taking toluene concentration as representing volatile organic compounds (VOCs), Garden Road and Preedy Street intersection was found with maximum concentration of 68ppb.

The report mentioned that Korangi Road and Baloch Colony bypass intersection had the highest noise level i.e. 99 decibels (dB) in the city while according to the National Environmental Quality Standards the noise limit must not exceed 85dB.

It was further said that the 24-hour average concentration of SO<sub>2</sub> was the only point of consolation; otherwise each pollutant had a concentration much higher than desired, according to the World Bank Guidelines and the National Environmental Quality Standards.

In the case of NO<sub>x</sub> it was stated that its concentration at all the intersections exceeded the limit of 150µg/m<sup>3</sup> as prescribed by the World Bank and the WHO.

For the Total Suspended Particulate (TSP) Matter, street sweeping was analyzed for hydrocarbon, lead, cadmium and asbestos and groundwater and wastewater for oil and grease to assess the impact of vehicular traffic on the quality of corridor of impact (COI). It was found that concentration of TSP exceeds 450µg/m<sup>3</sup> at Garden Road, Tibet Center, Maulvi Musafir Khana, Tower & Preedy Street intersections and at congested observation points like Karimabad, Liaquatabad No10 and Gurumandir. It is at 300-380µg/m<sup>3</sup> at observation points which are sufficiently open to the flushing action of wind, for example at Tin Hatti, Burns Road and Empress Market, Metropole Hotel, FTC, Sunset Boulevard and Baloch Colony Bypass. When compared with WHO guidelines limit of 120µg/m<sup>3</sup> for Suspended Particulate Matter; the increase shows that the living areas in the city are likely to be highly impacted by suspended particulate matter in ambient air. Similar is the case with lead and cadmium in TSP whose concentration ranges in each case between 2.5 and 4.12µg/m<sup>3</sup>. This level is higher than the 0.5 to 1.0µg/m<sup>3</sup> limits suggested by the WHO and 1.5µg/m<sup>3</sup> set by the USEPA or 2µg/m<sup>3</sup> by the EU.

From the measurements of concentration of different pollutants particularly the primary pollutants CO, NOx, and PM10 (inhalable) in the exhaust emissions from different modes of vehicles, it was noted that the vehicles using diesel oil as fuel or contaminated fuel; using lubricant in their fuel tank; operating with inappropriately tuned engines were responsible for contribution of more than the desired level of pollutants.

Observations on the performance of engines on roads suggest that present tuning practices dealt too inadequately with optimizing the engines of vehicles with respect to emissions. Besides, operation of vehicular traffic has been proceeding without adequate awareness on control of emissions by emission-related tuning and monitoring and vehicles operating on roads and highways observed no schedule for regular repair and maintenance, the report stated.

Suparco surveyors found that the hearing of about 70 per cent of the volunteers at the surveyed sites was impaired. "The results of survey indicate that there has been substantial impact on the quality of life of those who earn a living at the traffic intersections," the researchers observed.

### **53. Karachi Developing Strategies To Control Air Pollution**

The city government is working on a plan which will envisage a ban on registration of more diesel buses and conversion of old public transport vehicles with CNG. In view of the alarming level of air pollution on roads, the transport and communication department has drafted a set of action plans, which will be forwarded to the city's chief elected official and the provincial government for the implementation as soon as those are finalized by the competent forum, after getting inputs from all the stakeholders.

The district coordination officer has started receiving feedbacks on the draft strategies and shortly a report will be placed before the Traffic Management Board of the city government for final recommendations.

The transport department's report circulated among various quarters said that the diesel fuel available in Pakistan could be termed as poor quality. The sulfur contents of imported diesel in Pakistan is 5,000 parts per million (ppm), while for domestically produced diesel, it is 10,000 ppm.

Till such time the refineries in Pakistan are able to provide better quality diesel in the market and the imported diesel is of better quality, thinking about improvement in air quality through improved diesel engine technologies will be premature, the report included.

The report also refers to some scientific findings, describing diesel vehicles, which were around 10 per cent of the total number of vehicles plying on the city roads, contributed disproportionately to the output of most major category pollutants in the city accounting for over 86 per cent of the 60,736 tons of emissions each year.

About pollution from buses, it was said that 18,000 buses plied in the metropolis for public transport, out of which around 12,000 were operating on Karachi urban routes. About 43 per cent (7,580) are over 15-years-old, a majority of which required phasing

out as their condition was beyond normal maintenance measures and their continued use has resulted in high-level emission of smoke and particulates, it added.

The report also discussed the over-loading in buses, particularly during peak hours, and the consequential smoke emission. The worst polluters should be taken off the heavy traffic corridors and high density areas, it added and criticized the overloading on trucks, mainly run on diesel.

It has been suggested in the draft policy initiatives that as immediate action plans a ban on registration of diesel vehicles, a ban on re-registration or issuance of route permit to public transport vehicles brought from other provinces, a ban on alteration of vehicles by replacing petrol engines with diesel engines, imposition of heavy penalty, a minimum of Rs1, 000 to mechanically unfit vehicle causing air pollution.

The report further suggested for imposition of ban on sale of oil/lubricants from roadside or any other premises other than petrol pumps and on sale of reclaimed lubricant oil of poor quality.

Towards a better traffic management, it was said that a strategy for operation of public transport in extreme left lane, observance of speed limits, observance of designated bus stops, particularly prohibiting stoppage close to or at the intersections, prohibition of overloading both in public transport and goods vehicles, restrictions on the plying of goods vehicles during the day by further tightening of regulations and removal of encroachments from roads.

For promotion of use of CNG in vehicles, the report also called for increasing present CNG pressures of 8psi to 20psi at filling stations, availability of CNG to the transport sector with same tax exemptions as being extended to the industry sector, replacement of buses or mini-buses or coaches over 15-years-old with CNG buses only on 'oldest bus to go first' principle.

A total of 20 centers fully equipped to check the vehicles polluting environment would be set up in Karachi by a Malaysian firm at a cost of \$500 million, according to a statement by Adviser to the CM on Environment Noman Saigal, while speaking at a seminar on 'Preventing Environmental Degradation' in Karachi. The seminar was organized by the Helpline Trust.

The adviser said that transport vehicles were responsible for about 75 per cent of the pollution in Karachi. Lack of resources, including financial and administrative, was the main hurdle in checking spread of pollution, he said, adding he felt that 30 per cent of the health budget should be allocated for improvement of environment.

Mahmood Akhtar Cheema of the IUCN-World Conservation Union said that there were about 1.5 million vehicles on city roads emitting smoke which happened to be 25 times more than the average vehicular emission in other major cities of developed countries. He said 40 per cent of urban population faced health problems due to the rising pollution.

Justice (r) Shaiq Usmani said despite various law reforms, like the Pakistan Environmental Protection Council, Environment Protection Orders, etc., nothing better could be seen in respect of environment.

The major causes of pollution are dust, industry, burning of solid waste and smoke-emitting vehicles, especially the two-stroke vehicles, diesel trucks, and buses. Use of low quality fuel in such vehicles aggravates the situation further.

Experts were of the view that air pollution through vehicular emission could be contained at different levels by installing pollution control devices and switching over to refined fuel and vehicles with modified design. They suggested that registration of old buses and two stroke rickshaws and issuance of route permits to smoke-emitting vehicles be banned at the earliest. They called for the introduction of four-stroke rickshaws using CNG.

#### **54. Firm To Make Biofuel From Catfish Fat**

Vietnamese catfish processor and exporter Agifish plans to turn catfish fat into fuel to run diesel engines, according to a company official. "We are planning to commercialize the fuel based on the result of pilot tests," said Agifish Deputy Director Nguyen Dinh Huan.

Huan said Agifish has been using the fuel, made from fat left over from processing, to run pumps at its fish ponds in the Mekong Delta province of An Giang in southern Vietnam.

"The fuel is as good as diesel oil," he said.

He said samples of the catfish fuel had been sent for tests at laboratories in Ho Chi Minh City for quality checks and government approval.

The state-run Tien Phong (Vanguard) newspaper on Monday quoted Ho Xuan Thien, the chief engineer of the project, as saying the firm planned to build a 10,000-ton-per-year factory in 2007 to mass produce the fuel for domestic markets.

Thien said a kilogram of catfish fat could produce 1.13 liters of biofuel.

Vietnam produces around 30,000 tons of catfish annually, mainly for exports to the United States and Europe.

Agifish's products range from canned catfish through pre-cooked breaded fillets to sweet-and-sour fish prepared in clay containers.

Although Vietnam is Southeast Asia's third largest crude oil producer after Indonesia and Malaysia, it still relies on oil product imports for fuel because it lacks major refineries.

#### **55. China to Ban Small Scale Coal-to-Liquid Plants**

China will ban small scale projects converting coal to liquids as excessive development of the fossil fuel pollutes the environment and strains water supply, according to a government circular. Beijing will not approve plants less than 3 million tons per year (tpy) to process coal into transportation fuels, or projects less than 1 million tpy to convert coal into methanol, a blending component for petrol, the National Development & Reform Commission (NDRC) said in a statement.

Plants under 1 million tpy to produce dimethyl ether (DME), a diesel substitute derived

from coal, and projects to make olefins from coal under 600,000 tpy will also be banned, said the report published on July 14. Olefins are basic petrochemicals.

China is the world's largest producer of coal, which fuels about 70 percent of the energy needs of the world's fourth-largest economy.

The recent oil rally toward US\$80 a barrel has spurred a wave of coal liquefaction projects, but unchecked growth of the sector would damage China's already deteriorating environment, analysts said.

### **56. Caltex in Position To Gain From Australia's Tight Fuel Specifications**

Global energy consumption is at an all-time high - and rising. Demand for vital economic inputs, such as fuel, are expected to remain strong over the longer-term. This underpins a favorable outlook for Caltex. At a recent investor briefing, Caltex's manager of supply operations, Ken James, said Australian demand for petrol, diesel and jet fuel now exceeds refinery production by 6.7 billion liters annually. Capacity of the Australian refining industry has fallen by 12 per cent over the past three years, exacerbating the shortfall in supply.

When demand exceeds supply, prices usually rise. The refining industry needs many years and billions of dollars of investment to increase supply meaningfully, so the outlook for Caltex's profitability remains robust. Underpinning its profitability and strong margins is the quality factor. New Australian regulations limit the maximum amount of sulfur in diesel to 50 parts per million, down from 500 parts per million, and restrict benzene in petrol to 1 per cent, down from 3 to 5 per cent. These changes have seen strong quality premiums make a material contribution to margins for Australian refiners.

### **57. Dark Day For Hong Kong SAR**



Hong Kong was enveloped in dangerously high levels of thick smog as Chief Executive Donald Tsang Yam-kuen launched the Action Blue Sky campaign to reduce pollution.

As Tsang told the city's seven million people they will have to change their lifestyles if air quality is to improve, roadside monitors revealed air pollution levels at Central, Mong Kok and Causeway Bay were "very high".

The Environmental Protection Department recorded the roadside pollution index reached a level of 133 in Central, 121 in Mong Kok and 116 in Causeway Bay. A level of higher than 100 means that one or more pollutants may pose immediate health dangers to some people. Those with heart or respiratory illnesses may experience mild aggravation of their conditions. Generally healthy people may also feel some discomfort.

"Every small step taken by each individual to support the clean-air initiatives can help reduce air pollution," Tsang said. The small steps Tsang wants people to take include adjusting the indoor temperatures to 25.5 degrees Celsius, switching off idling engines

and using mass transport.

The government claims vehicle emissions are the leading source of street-level pollution, while smog is caused by a combination of pollutants from motor vehicles, industries and power plants in Hong Kong and the Pearl River Delta.

Tsang's initiative was described by one environmentalist as "encouraging" but he said there were "gaping holes" that had to be closed before residents could see more blue skies.

"Overlapping bus routes means more buses on the streets and the wall-like constructions interrupt air flow and jeopardize the government's goal," said Hahn Chu Hon-keung, environmental affairs manager of Friends of the Earth in Hong Kong

"These are the problems Tsang must address from a policy rather than an individual level," he said.

Green Sense spokesman Roy Tam Hoi-pong criticized the high rise "wall-like" apartment and commercial blocks which affect wind flow and worsen air pollution and said the government's poor urban planning should be held responsible.

Tsang said he was aiming to reduce electricity consumption in government offices by a further 1.5 percent this year, after achieving the target of 2 percent savings between April and September 2005 compared with the same period in 2004.

He also urged the private sector to dress down during the summer.

Tsang said that Hong Kong and Guangdong were studying and adopting measures to improve air quality. He hoped the two sides could give a public account of their discussions during the Ninth Plenary of the Hong Kong/Guangdong Co-operation Joint Conference in Guangzhou next month. "I will launch the pilot emissions trading scheme within this year, so that power companies can identify trading partners and draw up emissions trading agreements," Tsang told reporters in the provincial capital Guangzhou.

Final details of the pioneering scheme have yet to be worked out but it will not initially include greenhouse gas carbon dioxide, according to Sarah Liao, Hong Kong's Secretary for Environment, Transport and Works. "This is under the State Environmental Protection Administration, which has set up seven points within China and then two more points with Hong Kong and Macao to allow emissions trading as a pilot case study," she said after a joint Hong Kong-Guangdong panel on air pollution.

"It's very important that we establish this to pave the way for future emissions trading, including the very controversial carbon (dioxide) trading, which is not yet approved."

Power generation is responsible for 92 percent of the sulfur dioxide and half the nitrogen oxides dirtying the city's air, authorities have said, and they are keen to clean it up. Guangdong and Hong Kong have pledged that by 2010 they will cut regional emissions of the two pollutants by 40 percent and 20 percent respectively, using 1997 as a base year.

The two governments see trading as a potential tool to encourage power plants to make



the cuts, by allowing firms that reduce emissions below a certain quota to profit from selling spare emissions rights to companies that exceed their limit.

Liao said there were still complex details to work out, but they hoped to have a plan ready by the end of the third quarter. "We have been working on the details of how to trade -- how do you monitor the two sides, on what basis can you trade, and how do you calculate the effectiveness? It's not easy because we are under two different jurisdictions," she said.

Although much of the pollution Hong Kong needs to clean up drifts across from China, many of the factories producing it are owned by the city's executives, while power plants across the border help keep Hong Kong's lights on and air-conditioning running, giving the city extra leverage.

"We have to deal with both primary and secondary pollutants in Hong Kong," Secretary for the Environment Transport and Works Liao said in an interview with Sing Tao Daily, sister paper of The Standard.

Primary pollutants are the main sources of pollution such as emissions from coal burning.

But, she said, Hong Kong's problem is complicated by its susceptibility to secondary pollutants such as photochemical smog resulting from chemical reactions of sunlight, nitrogen oxides and volatile organic compounds in the atmosphere that leave airborne particles and ground-level ozone.

"Pollution in the Pearl River Delta is more serious than London's smog in the 50s," Liao said. The Great Smog of December 4, 1952, when thick fog mixed with coal smoke, lasted six days, during which more than 4,000 died of respiratory failures. Another 8,000 succumbed in the following months.

## **58. Japan Makes Plans for Greener Cars, Batteries**

Japan has drawn up an action plan to spearhead efforts to develop the next generation of more environmentally friendly vehicles and batteries to help reduce its reliance on oil. Under the plan, Japan aims to foster the introduction of state-of-the-art environmentally friendly vehicles in stages, a panel set up by the Ministry of Economy, Trade and Industry said in a new report.

The government should also set up a project to develop next-generation batteries to power such automobiles, through cooperation with local battery makers and research institutes, it said. It also plans to offer incentives to make such vehicles widespread in Japan, in addition to developing infrastructure.

By 2010, Japan will aim to mass produce two-seater electric vehicles capable of running about 80 kilometers (50 miles) per charge, as well as 30 percent more fuel-efficient hybrid vehicles, the panel said.

The panel also hoped that after 2030 local car makers would start full-scale mass production of electric vehicles, powered by batteries manufactured at a 40<sup>th</sup> of the cost of current versions.

Japan, the world's third-largest oil consumer, wants to cut its transportation sector's reliance on oil to around 80 percent by 2030 from about 100 percent now.

### **59. Acid Rain Reportedly Affects Large Swathes of China**

Acid rain caused by sulfur dioxide spewed from factories and power plants affected a third of China's vast land mass last year, posing a threat to food safety, Xinhua news agency said citing a parliamentary report. More than half of the 696 cities and counties monitored had suffered acid rain, in some cases on a daily basis, according to a pollution inspection report submitted to the standing committee of parliament.

"Increased sulfur dioxide emissions meant that one third of China's territory was affected by acid rain, posing a major threat to soil and food safety," Xinhua cited NPC standing committee vice chairman Sheng Huaren as saying.

Discharge of sulfur dioxide in booming China rose by 27 percent between 2000 and 2005 to 25 million tons, making the country the world's top emitter of the pollutant. Sheng told lawmakers that China's sulfur dioxide emissions, caused largely by coal-burning power stations and coking plants, were double the acceptable environmental limit. According to the report's findings, nearly 650 out of 680 coking plants in Shanxi, the country's main coal-mining province, discharged excessive sulfur dioxide, Xinhua said.

Air pollution, caused mainly by sulfur dioxide and particulate matter, was affecting some 40 percent of Chinese cities, Sheng said.

China has pledged to install desulfurisation facilities in coal-burning power plants and is planning pilot emissions trading schemes to help improve air quality.

In the same parliamentary report, Sheng also lifted the lid on false reporting of solid waste discharge levels by local governments and companies. Actual levels of toxic chromium waste in China could be as high as five million tons instead of the 4.1 million reflected in official figures. "Many firms report a lower figure for chromium waste for fear of being punished," Sheng said. One locality had originally reported that it had 3,000 tons of chromium waste but raised the figure to 100,000 tons after learning the government would build reprocessing facilities for them instead of fining them, he said.

### **60. South Korea to Offer Firms Incentives to Cut Emissions**

South Korea plans to offer financial incentives to local companies to encourage them to put more resources into cutting greenhouse gas emissions, the budget and energy ministries said on Sunday. The government would start offering financial incentives from next year to companies that cut emissions of carbon dioxide (CO<sub>2</sub>) and other greenhouse gases by more than 160 tons of oil equivalent (TOE) a year, they said in a joint statement .

"The incentive system will encourage companies to invest early in efforts to cut greenhouse gas emissions," the ministries said. "Such efforts will enhance our position in ongoing international negotiations to make emission cuts mandatory."

South Korea, the world's 11th-largest economy, is reliant on heavily energy-consuming manufacturing sectors such as steel and petrochemicals and ranks 10th in the world for greenhouse gas emissions, the ministries said.

South Korea is a signatory to the United Nations' Kyoto Protocol but is not obliged to reduce CO2 emissions as it is still classified as a developing country.

## **61. Seasonal Haze Resurfaces in Southeast Asia**

On July 25<sup>th</sup>, Southeast Asian governments pledged to step up efforts to fight the haze that blankets much of the region each year, as the polluted fog reappeared in Indonesia, Malaysia, and southern Thailand. Foreign ministers from the Association of Southeast Asian Nations (ASEAN) meeting in Kuala Lumpur said in a joint statement that member countries would "further intensify and undertake coordinated action" to deal "collectively" with the transboundary haze pollution, which is caused mainly by forest fires and agricultural burning in Indonesia and parts of Malaysia. The statement came in a week when Malaysia's Department of Environment said air quality had reached "unhealthy" levels in some parts of the country and multiple towns in the Indonesian provinces of Riau and Sumatra were covered in smog.

As of August 1, ASEAN's Jakarta-based Regional Haze Action Plan Coordination and Support Unit had identified over 100 "hotspots" in parts of Indonesia and Malaysia that contribute to the problem. The unit reported that environmental authorities throughout the region were attempting to contain the situation, with officials in Indonesia's Riau province establishing a "command post" to monitor fires in the area around the clock and Malaysia's Department of Environment launching aerial and ground surveillance patrols to crack down on open burning.

Indonesia's Ministry of Agriculture and Malaysia's Ministry of Plantations and Commodities also signed an agreement on July 18 that commits the two countries to "strictly implement" policies that ban open burning to clear land for development and to share information on companies or individuals starting forest fires.

But the Indonesian government has yet to set a timeline for its ratification of the ASEAN Agreement on Transboundary Haze, which took effect in November 2003 and contains provisions on joint monitoring, assessment, and fire prevention initiatives. The statement by ASEAN foreign ministers seemed to urge Indonesia to speed up its adoption of the agreement, with officials saying they "noted the on-going process of ratification by member countries which have yet to ratify the agreement and expected this to be finalized soon in order to ensure effective regional cooperation."

## **62. China Ramps Up Efficiency Drive, Eyes Fuel Tax**

Struggling to meet energy efficiency targets, China has ramped up its conservation drive with pledges from regional governments and top firms to cut usage and a renewed push toward a long-awaited fuel tax.

The energy-policy setting National Development and Reform Commission (NDRC) held a top-level meeting recently to discuss progress towards a goal of making a 20 percent cut by 2010 in the energy consumed to generate each unit of national income. Regional

leaders and representatives from 14 of the country's major firms signed pledges to meet specific targets, the Commission said in a statement on its Web site, without giving the company names.

China wants to crack down on the country's energy appetite to tackle a growing dependence on imported oil and the impact of fossil fuels on its increasingly battered environment. It is targeting energy-intensive industries such as steel, power generation, petrochemicals and construction and also encouraging small-scale domestic savings such as turning up the temperature in air-conditioned buildings and installing solar water heaters.

But the official China Securities Journal reported that growth in energy consumption had outpaced soaring first-half economic expansion of nearly 11 percent, suggesting an uphill struggle to hit the target. "In the first half of the year... the speed of increase of energy consumption out-paced the speed of gross domestic product growth," the paper said, without giving a source or a specific figure for the increase in energy use. "This means that there is a large question mark over whether we will meet this year's target for a 4 percent cut in energy efficiency," the paper added.

China's energy use for each dollar of national income generated is 3.4 times the world average, the official Xinhua news agency said.

Beijing has added energy-saving to the list of criteria used to decide officials' career prospects, in a bid to reverse decades of exhortations to promote economic growth at any cost, and some officials are promoting wider use of market mechanisms.

"China still labors behind (other countries) on energy efficiency," Chen Deming, vice chairman of the NDRC, told an Asian energy forum in the Laotian capital, Vientiane.

Vice Finance Minister Liao Xiaojun told the meeting China should offer tax breaks for efficient equipment and focus on using market mechanisms to discourage wasteful use.

"China should closely track changes in international oil prices and prices, and actively create conditions to promote the introduction of a fuel tax as soon as possible," the China Securities Journal said in a summary of Liao's comments.

The government keeps tight control over diesel and gasoline markets, but has raised pump prices twice this year.

Beijing has touted the possibility of a fuel tax for years, but with drivers already grumbling about an increase of 15 percent in state-set prices since the start of 2006, officials have shied away from implementing the unpopular idea.

With worries spreading about rapid economic growth, stricter controls on energy use could offer a way to rein in both industrial expansion and property development, however.

"The meeting... (offered) yet another sign that the tightening campaign is ramping up and that authorities are melding their policy objectives of curbing runaway investment growth and improving energy efficiency," the Eurasia Group said in a research note.

The NDRC has also threatened to cut off electricity to energy-intensive firms that "blindly

expand" their capacity, the report added, signaling a tougher approach in a campaign that has until now been based more on slogans than actions.

### **63. Beijing Must do More to Secure 'Green Olympics'**

Beijing Games chief Liu Qi says despite the huge investment already made the city needs to step up work on reducing pollution if it is to deliver a "Green Olympics" in 2008. Liu, president of the Beijing Organizing Committee for the Olympic Games (BOCOG), said he was confident that traffic would not be a problem by the time the Games open in two years Tuesday but more needed to be done to improve the notorious air quality in the Chinese capital.

"There is still a distance from our goal of 'Green Olympics' so we have to step up our efforts in the next two years," Liu, a former mayor of Beijing, said in an interview with Chinese media reported by state news agency Xinhua.

A shift from coal to gas in millions of homes is just one of the measures already in place, measures that China's Environmental Protection Administration says have cost 100 billion Yuan (12.5 billion dollars). In addition, the state-owned steel producer Shougang is being moved away from the west of Beijing while work has been suspended at the Beijing Chemical Works. "It was a bitter but important decision," said Liu, whose background is in iron and steel manufacture.

Liu said improvements in the city's infrastructure were already making inroads into congestion problems. "We have already made progress in unlocking traffic jams thanks to efforts that include expanding public transportation and building new highways to the city's suburbs," he said. "We are also considering strengthening traffic control during the Games time, such as instituting special lanes." "I am confident that traffic won't be a concern in August 2008," he added.

Otherwise, Liu believes the city is well on schedule to fulfill its commitments. "Our preparatory work is progressing very well as planned," he said. "Beijing's conditions are almost ripe for the Olympic Games." "Twelve brand-new venues are all under construction, and by the end of this year we will start renovation of all the existing venues."

"By the end of next year, all competition venues will be in place for the test events." The first test event in Beijing for the 2008 Games will start later this month when the softball world championship takes place at the Fengtai venue.

### **64. IEA Issues "China's Power Sector Reforms: Where to Next?"**

Every two years, China adds as much power generation capacity as the total in France or Canada. The country is now the biggest electricity consumer in the world after the United States and its needs are still growing.

"With its rapid rate of expansion, China's power sector is unique. At the same time, it shares many challenges that other countries have long grappled with: How to reflect the full costs of generating electricity in prices to consumers while increasing access to this essential commodity? How to provide stable and secure power economically? How to

reduce the environmental burdens of generating power?” said Claude Mandil, Executive Director of the International Energy Agency (IEA) in Paris at the launch of a new publication: *China’s Power Sector Reforms: Where to Next?* “Taking on these challenges, Chinese policy will have implications for energy markets and for pollution that touch all of us”, Mr. Mandil added.

Two years ago, IEA and Chinese officials agreed that applying the lessons of liberalization from other countries to China’s specific circumstances could help to refocus and re-energize its power sector reforms. This new IEA study is the result of that effort, and it comes at a time when the country is deliberating on a new comprehensive energy law, as well as revisions to its electricity law. Since China first embarked on an effort to gradually liberalize its power sector, great progress has been made: separating generation from transmission and improving distribution systems; experiments with wholesale markets are getting off the ground, and an increasingly independent regulator has taken its place in the Chinese administration. “China should be congratulated for this”, Mr. Mandil said, stressing, however, that “important challenges remain. Too much electricity is wasted by consumers and by networks, so too many power plants are being built to meet this demand. Too much fuel is wasted in generating power, and too much pollution is released as a result.”

*China’s Power Sector Reforms: Where to Next?* assesses ways to mitigate the tensions between rapid economic expansion and protection of the environment, and the promotion of greater equity. While keeping an eye on the long-term goals for the power sector, the report contributes mainly to the debate on actions to take in the next few years. “While no country has yet found a perfect solution, there is already clear evidence of the benefits that can be derived from competitive power markets, and this should remain the long-term goal”, Mr. Mandil said. Several near-term actions stand out as priorities. China needs first to strengthen its institutional and governance framework. In addition to clarifying legal structures, it should further define the roles of government agencies, for instance, clearly defining the State Electricity Regulatory Commission’s (SERC) mandate and enforcement powers regarding pricing and oversight of generators, the grid companies, and system dispatch and security. Pending establishment of a competition authority, SERC should also develop capacities for identifying and monitoring anti-competitive behavior. An urgent task is to unbundle generation accounts from those of other state interests to enhance transparency and enable effective monitoring. To carry out these functions, SERC’s staffing levels and capacities must be strengthened quickly.

These activities should all be taken with a view to tackling the environmental consequences of coal, which fuels 70% of China’s electricity. China has the opportunity to leapfrog reformed systems elsewhere by integrating energy efficiency and environmental goals into its regulatory framework for competitive power markets. At least in the near term, direct support for efficiency is important, including demand side management programs that reduce barriers to adoption of better technologies. Steps can also be taken quickly to make power prices more reflective of actual costs - sending strong signals to investors to choose more efficient equipment and fuels, and to consumers to use electricity more wisely. Cleaner power plants also need to be used. Generation performance standards and higher pollution fees would increase the likelihood of cleaner plants being built.

China recently announced power tariff changes that are a step in the right direction, but

it must take further urgent action to improve electricity pricing, no matter how difficult. One step towards a transparent pricing approach is for China to implement its proposed two-part pricing principle, under which the total price will consist of a regulated capacity price and a competition-based energy price. This will provide the basis for dispatching more efficient plants first. The country should also quickly implement its proposal to establish separate pricing for transmission. If China were to create alternative ways to help vulnerable customers, such as through lifeline support mechanism for poorer households, then it would be much easier to move towards transparent, cost-reflective pricing. Transparency is the key that will help unblock progress across all fronts. Better data collection and analysis on the power sector would improve understanding of supply and demand developments, and underpin the operation of effective markets.

“Across the world, power sector reform is a continuing process; no country can claim to have worked it all out. The IEA therefore looks forward to learning from China’s experience, as we share lessons learned from power sector reforms in our member countries”, Mr. Mandil concluded.

## **65. Indonesian Environment Ministry Lays Out Plans to Cut Pollution**

Indonesia's Environment Ministry plans to bolster funding and divert more resources to local authorities to tackle the country's growing pollution problems, according to a recent report. The report, released the week of July 10, sets out strategic goals for reducing pollution in air, water, and soil; increasing the capacity of provincial governments to control emissions; and encouraging people and companies to switch to more environmentally friendly products.

The ministry pledged to step up enforcement of environmental regulations and to establish incentives for firms to improve resource efficiency and reduce pollution. The report also outlined plans to force enterprises to incorporate environmental protection measures into all development and construction plans and to monitor the environmental impact of projects more closely.

The ministry recently created two new regional offices in the densely populated province of Java and the heavily forested Kalimantan (Borneo) to "coordinate and monitor" the implementation of environmental regulations.

Environmental authorities are working with relevant government bodies to eliminate import duties on advanced pollution prevention tools and technologies. In addition, the central government will give local governments 600 million rupiah (\$66,000) by the end of the year to purchase new water quality control and monitoring equipment, the report said.

In the industrial sector, the ministry plans to implement new emissions standards for factories, and will step up inspections to ensure that firms are complying with existing obligations, such as by regularly conducting emissions tests and providing environmental data to authorities.

At the same time, environment authorities have finalized a plan to address Indonesia's deteriorating urban air quality. The plan calls for boosting natural gas to 5 percent of fuel consumption in the industrial and public sectors of four major cities by 2009, and raising

biofuels to at least 2 percent of fuel consumption nationwide by the end of the same year.

The government aims to cut the amount of air pollution generated by motor vehicles and industrial activity to half of present levels by 2020. In the transport sector, it will work toward this goal by increasing the availability of low-sulfur gas, reducing emissions thresholds for new vehicles, and introducing a "transport demand management" system to discourage the use of private vehicles.

Officials hope to develop a "strong legal foundation" for the rehabilitation of air quality in Indonesian cities by 2009, built on a new monitoring strategy that strengthens the collection of air quality data and gives local and national authorities' access to an updated database on emissions standards.

While many have long been skeptical of the Jakarta air pollution index run by the city administration, there has been little evidence to warrant such an attitude. Recently, however, it was announced that most of the existing air monitors in the city have been broken for some time. The administration has blamed budgetary limitations for the problems, and said that ownership battles over the devices with the Environment Ministry had exacerbated the problem. The monitoring units were purchased with a grant from the Swedish government and installed in Senayan and Kemayoran in Central Jakarta, Pondok Indah in South Jakarta and at the offices of the East and West Jakarta municipalities in 2000. The city administration admitted that it had allocated only Rp 600 million this year for the operation of the five stations, far lower than the minimum Rp 400 million a unit needed. "The air monitors are assets of the Environment Ministry and thus we can't propose a higher budget for their maintenance to the City Council," Rini Suryani, a spokesperson from the City Environment Management Board (BPLHD), told a forum. The administration spent Rp 1.5 billion maintaining the monitors in 2005, down from 2004's Rp 2.5 billion. The monitors measure five parameters of main pollutants -- particulate matters with a diameter of less than 10 microns, nitrogen oxide, sulfur dioxide, carbon monoxide and ozone.

Jakarta recorded 20 days of clean air in 2005, up from 18 days in 2004.

The Joint Committee for Leaded Gasoline Phase-out said the lack of funds provided air monitor maintenance could hamper the city's efforts to improve air quality. "It is the basic data needed to make policies to improve air quality in the city," committee chairman Ahmad Safrudin said. He said the administration received at least Rp 150 billion a year from taxes on fuel. "Where does the money go? It could be used to improve the performance of air monitors," he said. Jakarta has chronic air pollution problems, which prompted the local administration to impose the 2005 Bylaw on Air Pollution Control. The by law ordered a ban on smoking in certain locations, mandatory emissions tests for private cars and the use of natural-compressed gas.

## **66. China To Make Industry Pay For Pollution**

China will order industry to pay for the right to discharge noxious sulfur dioxide in a market-driven attempt to tackle its chronic air pollution problem. Under a plan to reduce sulfur dioxide emissions by 10 per cent, China will also introduce emission trading deals.

Department of Pollution Control director-general Li Xinmin said that sulfur dioxide



emissions rose 27 per cent in the five years to the end of last year, during which the country's coal consumption - the main culprit - grew by more than 800million tons. He said restricting the sulfur dioxide rise to 27 per cent was an achievement, given soaring coal-fired power generation. "That means it's still under effective control," he said. "Without restrictive measures it would have been much worse.

"Coal accounts for 70 per cent of China's energy consumption. This fact is hard to change in the short term." Half of the coal is used to generate power.

But overall, he said, during 2000-05, 22 per cent more cities brought their air quality up to a required national standard, while the number with unacceptable air quality fell by 24 per cent.

Last year, 357 out of 696 cities being monitored were found to have acid rain.

Mr. Li said that during the new five-year plan that had just started, the Government was seeking an ambitious 10 per cent fall in sulfur dioxide emissions. He said the State Environmental Protection Administration would tackle this task through pilot projects on selling emission rights and establishing emission trading, through technological change - including installing desulfurisation units in coal power plants - and through publishing more often and more publicly the names of enterprises that meet pollution targets and those that do not.

The Government would also introduce tougher vehicle emission standards and phase out the vehicles that failed to meet them. In Beijing alone, he said, the city authorities were planning to take 300,000 unacceptable cars off the roads by the end of next year - in time to help ensure the tough target of a clean, green Olympic Games in August 2008.

Mr. Li said this push to remove polluting vehicles, plus measures to improve fuel quality, was the 12th stage of Beijing's Olympics-driven environmental program. The other 11 stages, he said, had each cost up to \$16 billion.

He said that by 2008 all heavy industry, led by Capital Steel Company, would be moved out of Beijing, and that the boilers in the heart of the city would be converted from coal to liquefied petroleum gas. Beijing Chemical Works has already been closed down.

In surrounding provinces, 185 businesses that failed to comply with environmental standards were shut down last year, he said.

Partly as a result, Beijing had met its target of 63per cent of the days in 2005 meeting national air quality standards.

Mr. Li said that "after years of stable and rapid growth", the Government was now shifting to a more balanced strategy "to optimize growth by environmental measures. Faced by such rapid growth, we are strengthening our supervision".

He said a claim published that almost 25 per cent of Los Angeles's air pollution came from China was "not trustworthy because such findings don't have a solid scientific basis".

## **67. Auckland Regional Council ARC Welcomes Cleaner Fuels**

The Auckland Regional Council welcomed the Government announcement that cleaner fuels are on the way. ARC has been actively campaigning for improved fuel specifications, to help clean up Auckland's air, since its high profile 0800 Smokey campaign launched in August 2000. ARC Environmental Management Chair Dianne Glenn says the announcement is a big step in the right direction.

"Motor vehicle emissions are the largest single cause of Auckland's air pollution so the Government's cleaner fuel initiatives will go some way to improving Auckland's air quality," says Cr Glenn. "Auckland's 740,000 vehicles, which emit thousands of tons of toxic air pollutants, are responsible for up to 80 per cent of the region's air pollution," she said.

Cr Glenn says although she welcomes today's announcement, more needs to be done to improve Auckland's poor air quality because it is a serious threat to the health of Aucklanders. "A recent report to the Ministry of Transport by health experts around the country estimates that air pollution causes at least 486 premature deaths per year in the Auckland region. 58 per cent of these (253) are due to motor vehicle emissions."

"We also recently announced that the National Environment Standards for ambient air quality were breached in the Auckland region," says Cr Glenn.

A recent study by ARC shows that Aucklanders want cleaner air and more stringent standards for air emissions, she said. "In the study, 87 per cent of respondents agreed that New Zealand should legislate the level of emissions permitted from cars, and 59 per cent of respondents were also aware that air pollution from motor vehicles causes asthma and other respiratory problems. Also 95 per cent of people surveyed agreed that every car owner has a personal responsibility to reduce the amount of air pollution from their car".

"Making sure your vehicle is regularly tuned is the easiest way to lower emissions, as a poorly-maintained vehicle can release as much as 10 times the emissions as a well-maintained vehicle," she noted.

"ARC is looking forward to seeing further government initiatives which will help clean-up the region's air and achieve the 53 per cent emissions reduction needed by 2013 in order to meet National Environmental Standards," says Cr Glenn.

## **68. Cash Incentives Seen As Best To Curb Emissions**

The New Zealand Business Council for Sustainable Development says its policy to pay cash incentives to climate friendly car buyers is firmly backed up by a new report to Europe's transport ministers. The report was prepared by NERA, a London-based economic consultancy, with support from the world's leading automobile organization, the FIA. It reviews ways to lower health and climate harming CO2 emissions by the transport sector.

The Government is investigating a Business Council proposal backed by six out of 10 New Zealanders in nationwide polling to pay cash incentives of up to \$3000 to buyers of

low emission, fuel efficient cars.

The report to the European Council of Transport Ministers, reviewing measures taken in Europe and worldwide, says improving vehicle fuel efficiency through fiscal incentives ranks third among the most effective in cutting CO2 emissions.

"There is considerable potential for differentiating vehicle taxes in more countries, improving the basis for differentiation, increasing the range of vehicles subject to incentives and increasing the size of the incentives created," the report says.

It also says there are huge gains to be made from teaching people to drive in fuel efficient ways, and vehicle taxes could be effectively based on fuel and emission efficiency, rather than engine displacement or power or weight.

Business Council Chief Executive Peter Neilson says transport in New Zealand is pumping more than 14 million tons of CO2 equivalents into the air each year, the second biggest greenhouse gas emission behind agriculture.

"While higher fuel prices are also an incentive to buy more fuel efficient cars, as we are seeing in the latest New Zealand small car sales figures, they're not enough on their own.

"Petrol will need to hit \$4 a liter here before we see a significant switch to climate friendly cars. Even at current petrol prices, the rise in small car sales to a rate of about 16,608 a year won't achieve any rapid or big change. That means just 83,000 smaller cars will be sold over the next five years. With cash incentives, our research shows 430,000 fuel efficient, low emission cars not just small ones could enter the national fleet over the next five years.

The cash incentives policy will cost the Government \$103 million a year. The Business Council says the pay back will be significant for the Government. It will improve air quality, quality of life, help cut a \$400 million a year health bill for treating people whose respiratory and other conditions are aggravated by petrol particle pollution, and cut the death toll from petrol pollution, running at more than double the road toll.

## **69. Japan Sees Biodiesel Boost With New Fuel Standards**

Japan, the world's third-largest oil consumer, will set out nationwide biodiesel standards this year in an effort to kick-start demand, but will not force refiners to sell it, government officials have announced. Lagging international moves to use more biofuel to battle soaring crude oil prices and help ease global warming, Japan hopes the law -- allowing about 5 percent of fatty acid-derived fuel in diesel -- will spur more sales of green fuels made from renewable sources such as soybeans and sugar.

Given gasoline-oriented Japan's limited diesel consumption and lack of incentives, however, the take-up from consumers and refiners is likely to be tepid at first, officials conceded. "The legislation is expected to be passed by the end of this year, and the law will become effective by the end of this fiscal year (to March 2007)," according to an official at the Agency for Natural Resources and Energy, a unit of the trade ministry.

Japan now allows oil companies to blend about 3 percent of ethanol, another biofuel

produced from crops such as sugar or corn, into gasoline, the motor fuel of choice for most drivers. It does not have rules to regulate biodiesel quality, deterring potential retailers from offering it and limiting its use to voluntary efforts by some local municipalities using waste vegetable oil for public transport, officials say.

Tokyo will not require retailers or refiners to blend a minimum percentage of pure biodiesel into their motor fuel, as some nations and governments have done. But it may consider tax incentives in future to encourage consumers to use biofuels, said the unnamed official.

The government will also offer financial support for companies that are developing ethanol blending technologies.

Oil prices that stay stubbornly above US\$70 a barrel have made alternatives more economic, while a global push for cleaner fuels has aided momentum toward the cleaner fuel. But for the moment, no bio-transportation fuel -- diesel or gasoline -- is sold at pumps at Japanese gas stations at all.

The Petroleum Association of Japan, the industry's lobby, said earlier this year it hoped a gasoline blended with 3 percent of ethyl tertiary butyl ether (bio-ETBE) would meet about 20 percent of the country's total demand by 2010.

Diesel is mostly used to fuel trucks and buses in Japan, with demand totaling 37.34 million kl (643,000 barrels per day) last year. Gasoline demand was 61.6 million kl (1.1 million bpd).

While countries like Thailand and the United States enjoy double benefits from biofuel -- curbing oil imports and lifting rural incomes -- Japan is unable to feed itself, meaning it must still rely on crops in Malaysia or Brazil to provide it with most of its imported biodiesel or ethanol.

## **70. Singapore Turns to Biodiesel to Fight Rising Fuel Costs**

There is growing interest in Singapore, Asia's largest oil-refining center, in the potentially lucrative biofuels industry in the face of rising conventional fuel prices. Singapore is well placed to develop such an industry as it has easy access to palm oil, a key biodiesel ingredient, from its neighbors Malaysia and Indonesia. Both countries together produce about 80 percent of the world's palm oil supply.

"Biodiesel is a sustainable and renewable fuel that is friendly to the environment," said John Hall, global marketing director of Germany-based Peter Cremer Gruppe energy business. Peter Cremer (Singapore), the Asian arm of Germany's Cremer Gruppe, plans to set up a US\$20 million plant in Singapore by May 2007 with enough capacity to produce 200,000 tons of biodiesel.

"We are using a feedstock that is renewable in that it can be harvested and grown again, whereas once you use the earth's oil reserves they cannot be replenished," Hall said.

The firm would sell the fuel at US\$40 per barrel to earn a profit, he said.

"Global trends are driving the development of agricultural products into new sources of energy and materials," said Teo Ming Kian, chairman of Singapore's Economic Development Board.

But despite being renewable, biofuels might not be as friendly to the environment as they seem, say environmentalists. Friends of the Earth and British political activist George Monbiot say the expansion of the biofuel industry could lead to deforestation as plantations to provide the renewable fuel are established on land cleared of rain forests. In a September 2005 report, Friends of the Earth said that palm oil plantations were responsible for an estimated 87 percent of deforestation in Malaysia.

Energy analysts doubt whether biodiesel products will lead to a reduction of dependence on conventional fuels. "The fuel market is so big that biodiesel can't make a significant difference and will only be a small fraction of the overall diesel use in Asia," said energy analyst Victor K. Shum. "But with oil prices so high these days, biodiesel does get more and more cost-effective," he added.

## **SOUTH AMERICA**

### **71. Santiago's Killer Smog is Getting Worse Again**

Chile's capital, home to some of Latin America's foulest air, is losing ground in its battle against pollution after hard-won gains in the 1990s. From 1990-2000 air pollution levels fell in Santiago as factories switched to cleaner fuels and belching old buses hit the scrap heap, helping improve a blight on what is otherwise one of the region's most livable urban areas.

Officials crowed that the metropolitan area, home to roughly 6 million people, had seen the end of pollution emergencies and so-called pre-emergencies that force cars off the street and shut down industrial plants.

Chile's economy is booming due to robust exports of copper, salmon and forestry products. But economic good times have aggravated pollution. Brand new superhighways crisscross Santiago and sales of cars -- the main pollution source in the capital -- have surged.

A recent international audit strongly criticized government cuts in financing for Santiago's clean-air program, saying government complacency was to blame for rising concentrations of harmful ozone and carbon monoxide since 2002.

Official numbers show that in the last two years, levels of PM2.5 have risen in several districts of Santiago and are well above international safe air standards.

Santiago's geography does not help matters. The city sits in a dusty, arid bowl up against the Andes, a wall of mountains that inhibit air circulation.

Low rainfall this year has aggravated air quality and since January Santiago officials have declared 14 alerts, when air pollution reaches the lower end of a potentially dangerous range, making 2006 the most polluted year since 2003. The alerts force some older cars off the road to improve air quality.

Even though pollution levels are still better than they were 10 years ago, Santiago is firmly stuck among Latin America's most polluted cities, along with Mexico City and Sao Paulo. Experts say it will be expensive and painful for Santiago to further clean its air, since it already took the obvious, easy and economical measures.

Public pressure for tougher anti-smog measures has mounted this year as local media have reported the deterioration in air quality and as Santiago heads into another winter of hospital emergency rooms filled with coughing children.

Health officials and opposition politicians say the government is not spending enough to control pollution and center-left President Michelle Bachelet said she would earmark some of Chile's extraordinary income from high copper prices to finance the pollution battle.

## **72. Nearly 60 Percent of Venezuelan Buses Fail Emissions Tests in Early June**

About 60 percent of the buses whose carbon monoxide and nitrogen emissions were tested in early June failed to meet environmental standards, according to an environmental official. Luis Brito, an air quality official with Libertador, where the recent measurements were performed, said those buses would be retested after 15 days in the case of gasoline vehicles and 30 days for diesel vehicles. If the buses still do not meet pollution standards, they will be banned from the roads, Brito said.

Libertador is the largest borough in Caracas, Venezuela's capital city. Venezuelan environmental officials June 7-9 measured the emissions of some 400 privately owned city buses in what officials said is the beginning of more aggressive emissions testing in the country.

Brito said the testing was used to evaluate testing equipment borrowed from the Ministry of the Environment and Natural Resources (MARN). Soon, he said, Libertador and other municipalities will purchase their own testing equipment and carry out more frequent testing sessions. For example, Libertador plans to conduct emissions testing sessions each week, and that will include testing automobile emissions, he said.

Frenzel Diaz, the Environment Ministry's top air quality official, said that the recent testing is the start of a national program under Decree No. 2673 of August 19, 1998, published in Official Gazette of Sept. 4, 1998. Venezuela historically has not enforced any emissions standards for vehicles. Because the government subsidizes the price of retail gasoline down to 12 cents per gallon, old and inefficient vehicles are common.

## **73. Petrobras Begins to Test New Fuel Made With Hydrogen, Vegetable Oil**

Brazil's state oil company Petrobras June 20 began industrial production tests on a new biodiesel fuel it developed to complement the regular biodiesel fuel that recently went on sale at pumps, a Petrobras spokesman said. The new biodiesel, called H-Bio, is made by reacting a mix of 90 percent petroleum and 10 percent vegetable oil with hydrogen.

Standard biodiesel is made by reacting vegetable oil with sugarcane-based ethanol to make a biofuel that is added to regular diesel and sold at the pumps as B-2 biodiesel, 2

percent biofuel, and 98 percent regular diesel.

As the H-Bio sold at fuel pumps will have a greater percentage of vegetable oil than B-2 biodiesel, it will be a cleaner biodiesel, the Petrobras spokesman explained. Both biodiesels are also less polluting than regular diesel because of their much lower sulfur levels.

A big production advantage of H-Bio is that it is being made at a Petrobras refinery, whereas B-2 must be made at specially built biodiesel plants and then mixed with regular diesel before going to the pump.

Petrobras began selling B-2 biodiesel at pumps recently and expects to put H-Bio on the market by the end of the year.

Brazil's state oil company Petrobras plans to boost production of biodiesel to 855,000 cubic meters annually by 2011, which would amount to 85 percent of the volume required to meet a national target for 2008, according to Petrobras. A congressional bill (No. 11.097) passed in 2005 requires "B-2 biodiesel," consisting of 2 percent biofuel and 98 percent regular diesel, nationwide by 2008 and "B-5" (5 percent biofuel) by 2013. One million cubic meters per year of B-2 is needed to supply pumps nationwide by 2008, Petrobras said. The oil monopoly has earmarked an initial US\$60 million to build three plants where vegetable oil will be reacted with sugar-cane ethanol to produce pure biofuel, which will then be mixed with diesel. Petrobras plans to build nine other biofuel plants by 2011. Petrobras will not invest in soy farms or in ethanol production plants but instead will reportedly buy feedstock from third parties. Petrobras is now offering B-2, purchased from third parties, at 500 pumps and plans to expand to half of its 7,000 gas stations by the end of the year.

## **74. Colombia Taking Various Measures To Reduce Pollution**

### **A. Tighter Standards On Vehicle Emissions, Sulfur in Fuels**

Colombia's ministries of the environment and transport are drafting a resolution to tighten emission standards for all types of vehicles. At the same time, the Ministry of Energy and Mines has issued a new resolution revising plans to mandate lower sulfur levels in fuels.

- The resolution being drafted on vehicles emission standards would set standards for gasoline-powered vehicles built in 1998 or later. Standards being considered would cap carbon monoxide at 1.5 percent of exhaust, and hydrocarbons at 300 parts per million. Limits are less stringent for older vehicles.
- Diesel vehicles' exhaust could not exceed 40 percent opacity for vehicles of model year 1998 or newer, while the limits for older vehicles are less stringent.
- Gasoline vehicles would also be prohibited from producing visible emissions for more than ten seconds consecutively.
- Public transit vehicles would have to undergo testing annually, while private vehicles would be tested every two years.

- Owners of vehicles found to be in violation of the emission standards would have five days to make repairs and be retested satisfactorily.
- For newly imported or manufactured vehicles, 10 percent of each shipment of a single model would have to be tested, and the importer or manufacturer would have to guarantee that the vehicle meet emissions standards for the first 20,000 kilometers of use. If one of the new vehicles fails to meet the standards, the owner would have 10 days to make repairs, during which time no vehicle in the shipment could be sold.

Vehicle importers would have to present certification of emissions testing to the Colombian Institute of Foreign Commerce. Emissions testing in the vehicle's country of origin would also be accepted as long as that nation's emissions standards were equal to or stricter than Colombia's.

The draft law would also require regional and municipal authorities to carry out testing operations at least three times annually using mobile testing equipment on roadways.

In June, Colombia also issued a new resolution requiring progressively lower fuel sulfur concentrations over the next four years. Compliance will require importing cleaner diesel fuel and gasoline. Resolution 1180 caps sulfur levels in diesel at 1,000 parts per million in Bogotá and 4,000 ppm in the rest of the country by July 2007, and 500 ppm nationwide by 2010. Current levels are 1,200 ppm and 4,500 ppm, respectively.

Gasoline sulfur content, now at 1,000 ppm, is to be reduced to 300 ppm by the end of 2010.

The state petroleum company Ecopetrol is planning refinery improvements to supply the cleaner fuels, Cesar Vera said.

Colombia is self-sufficient in gasoline but imports 6,000 barrels per day of diesel fuel.

The government has begun constructing a hydrotreatment facility for gasoline and diesel at the refinery of Barrancabermeja and an expansion of the refinery of Cartagena to provide the cleaner fuels. However, according to resolution 1180, setbacks have forced delays in the sulfur reduction schedules.

#### B. Bogotá Restricts Older Trucks, Buses

On September 1<sup>st</sup>, Bogotá will impose restrictions on the use of older, more highly polluting trucks and buses within the city, Mayor Luis Eduardo Garzon announced on August 13<sup>th</sup>.

Decree 174 of 2006 designates the Bogotá neighborhoods of Puente Aranda, Fontibón, and Kennedy as "high pollution regions-sources" for the concentration of particles of less than 10 microns in diameter. The resolution requires the city's Technical Administrative Department of the Environment, or DAMA, to classify the capital's other neighborhoods by September 15<sup>th</sup> and to propose measures to control their pollution.

When Garzon announced the pollution-control program, called the Pico y Placa



Ambiental, months ago, he had said it would apply only to the three neighborhoods designated as high-pollution areas.

The decree orders the DAMA to designate pollution limits for fixed-pollution sources located in high-pollution districts and to update its inventory of pollution sources.

The DAMA also must close industries that burn solid or heavy fuels, lack pollution controls, and violate pollution limits, and the department must issue regulations to prohibit the burning of used oil as fuel, according to the decree. In addition, the DAMA is to suspend construction of new pollution sources, unless they use "environmentally clean and efficient technologies."

The decree also prohibits the circulation of buses one out of every 10 weekdays, in a rotating schedule depending on the last digit in their license plates. Trucks weighing more than five tons also are prohibited from circulating in the city between 9 a.m. and 10 a.m. on weekdays, beginning October 1<sup>st</sup>. However, the restriction is not to apply to buses and cargo vehicles belonging to companies participating in a newly established Environmental Self-Regulation Program. Because of climatological conditions, pollution levels are usually highest in the morning.

The decree also orders that public works carried out in high-pollution neighborhoods be prioritized using environmental criteria and that the DAMA carry out tree-planting programs in those neighborhoods. The policy's effects are to be evaluated in September 2007.

If bus owners do not agree to sell older, highly polluting buses at the prices offered by a city buy-back program, the city will expropriate them, Garzon said. He also announced that the city would institute new unified transport management policies intended to reduce the excess number of buses and to institute centralized management and fare-paying policies.

### C. Resolution to Boost Safety At CNG Filling Stations

A July 26<sup>th</sup> resolution by Colombia's Ministry of Energy and Mines set technical specifications for service stations selling natural gas to vehicles. Resolution 180928, intended to protect health and the environment, sets specifications for characteristics such as a gas station's dimensions, required insurance, safety valves, and signage.

The Colombian government is carrying out an aggressive campaign urging drivers to convert their vehicles to run on natural gas.

The resolution requires station owners to carry insurance for "non-contractual civil responsibility" worth at least 800 times the value of the existing minimum wage. The station must also have an evacuation plan, break-away valves on pump hoses, sensors with alarms to detect leaks, and specific safety signs.

Every six months, stations will be required to test for leaks and check security valves and other security gear; and every five years they will be required to carry out a hydrostatic test of its natural gas tanks. Security equipment must conform to the standards of the Colombian Technical Norms (NTC).

The Superintendency of Industry and Commerce is charged with supervising compliance with the resolution, which is to go into effect Feb. 1, 2007. The decree is to be revised Feb. 1, 2009.

### **75. Peru to Issue Timetable for Environmental Standards, Pollution Limits**

On July 22<sup>nd</sup>, Peru published legislation that will establish a time frame for approving environmental quality standards and setting maximum allowable limits for environmental contamination. Law 28817, published in El Peruano, the official gazette, gives the National Environmental Council (CONAM) 45 days to draw up the timetable for implementing the standards and limits. The entire process must be concluded within two years. CONAM is required to report to congressional authorities every six months on progress.

In addition, CONAM and the National Environment Fund, under the direction of the Cabinet chief's office, will coordinate efforts to attract donations from international cooperation agencies to cover the costs of the process.

Publication of the law came one day after the release of the National Report on the State of the Environment: Global Environment Outlook Peru, which was produced by CONAM and the U.N. Environment Program (UNEP). This is the fourth state of the environment report and it demonstrates that there is need for new controls.

According to the report, air quality in Peru's principal cities and mining areas has deteriorated in the past few years. Contaminants in the air increased by 33 percent between 2002 and 2003 alone, and worsening levels of air pollution are one of the reasons Peru leads Latin America and the Caribbean in cases of acute respiratory infections.

Much of the air pollution in the Peruvian cities examined in the report comes from vehicles running on dirty fuel. Peru continues to allow the use of diesel with sulfur above 7,000 parts per million (ppm), well above neighboring countries, such as Chile and Brazil, which have brought levels down to 350 ppm.

## **AFRICA**

### **76. South Africa Proposes New Air Quality Standards**

South Africa has unveiled new draft air quality regulations. The draft standards, published June 9 in the Government Gazette, are designed to help implement the country's National Environmental Management: Air Quality Act, which took effect last September and has been designed to overhaul the country's air quality management regime.

The new draft standards would strengthen limits on eight different pollutants: sulfur dioxide, nitrogen oxides, carbon monoxide, particulate matter, ozone, lead, benzene, and dust deposition.

For particulate matter the old standards are 180 micrograms per cubic meter over a 24-hour period, and 60 micrograms for the annual average. The proposed new standards

would tighten those limits to 75 micrograms in a 24-hour period, with an annual average of 40 micrograms.

The proposed new standards are subject to a 90-day public comment period.

### **77. New Diesel Set To Lessen Cape's 'Brown Haze'**

One of Cape Town's major environmental problems is its notorious "brown haze" smog, caused mostly by the emissions of diesel vehicles. Diesel engines have traditionally been viewed as "slow, noisy, dirty and smelly", according to Rob Main of the National Association of Automobile Manufacturers of SA (Naamsa). But that was changing, he said, because of new diesel vehicle technology and associated new diesel fuels with a much lower sulfur content - less than 50 ppm (parts per million).

This is one tenth of South Africa's current diesel fuel standard of a maximum of 500ppm.

The goal is to introduce a 50ppm sulfur maximum in the country by 2010.

About 50 percent of all passenger cars sold in Europe are diesel-powered, although consumers there have the advantage of subsidized diesel fuel. The figure in South Africa was lower, at about 20 percent, said Main. He was speaking at a function at the Waterfront headquarters of international fuel giant BP this week. The function launched its new Cleaner Diesel 50 ultra-low sulfur fuel, which meets current European standards.

In the past 20 years, said Main, petrol and diesel engines have been subjected to intense development: "This has resulted in enormous strides being made in both specific power outputs and specific fuel consumption. But this new generation of diesel engines, and particularly those manufactured post-2005, require ultra-low sulfur content fuel.

"Not only is ultra-low sulfur diesel necessary for (new) vehicles, but it is essentially cleaner for the environment and also extends the life of the vehicle itself," said Main. "For these reasons, Naamsa endorses this new product, and would welcome a similar initiative by other oil companies that do not currently market ultra-low sulfur diesel."

The new fuel has also been welcomed by the City of Cape Town's health authorities. Deputy director of health Ivan Bromfield said the first "brown haze" study had concluded that diesel vehicle emissions made up 48 percent of the smog, with petrol contributing 17 percent. This had been confirmed by a second study, although it also found that the contribution of domestic fuel burning in informal settlements was under-estimated.

Bromfield said his department's air quality management unit, which runs a diesel vehicle testing section, had found a significant drop in the number of vehicles failing the test: down from 70 percent in 2000 to 2 percent last year. "We feel this drop is due to the improved maintenance of fleets, but also very importantly to the introduction of lower sulfur diesel," he said. "We welcome any initiative which assists the city in achieving its vision of being 'the city with the cleanest air in Africa'. This ultra-low sulfur diesel will help make Cape Town cleaner and healthier."

The fuel company said the new fuel would reduce sulfur emissions by 90 percent on all diesel vehicles compared to standard diesel fuels. It would also decrease particulates

and black smoke emissions by 30 percent without decreasing performance.

BP says its new low-sulfur diesel fuel – which, at 50 parts per million, has only 10 percent of the maximum allowed in South Africa – is now available at coastal pumps. It will be available inland in coming months. The launch of BP Cleaner Diesel 50 brought BP SA in line with the company's global cleaner fuels strategy, part of a \$1-billion global program to clean up major cities most affected by air pollution.

The standard cleaner diesel fuel currently allowed by government has a sulfur content of no more than 500 parts per million (ppm).

However, South Africans were likely to see this level gradually reduced to a point where even less sulfur emissions were permissible, said Peter Lukey, the chief director of Air Quality Management and Climate Change at the Department of Environment and Tourism (DEAT). The National Environment Management: Air Quality Act 39 of 2004 came into force last year and tightens up the conditions under which emissions that reduce air quality are permissible. Under the Vehicle Emission Strategy, a joint collaboration between the DEAT and the Department of Minerals and Energy, a timetable for reductions in the sulfur content of diesel has been established, with further reductions on the cards in a gradual process of improving air quality in line with standards elsewhere.

BP's vice president for marketing, Siphso Maseko, said yesterday at the launch of its BP Cleaner Diesel 50 product in Cape Town: "Although the South African petroleum industry has ensured that diesel fuel is in line with the new cleaner fuels bill, which states that the maximum sulfur level allowed in diesel fuel is 500 parts per million (ppm), in reality all new technology diesel vehicles are designed for European standard diesel with a sulfur level of 50ppm, which is why we launched BP Cleaner Diesel 50."

The company's new product was currently available only in the coastal regions of Cape Town and Durban but would be available in Gauteng in a few months' time, said spokesperson Tebogo Meko.

The move has been welcomed by government, with Mr. Lukey saying that "there is no doubt that a reduction in sulfur [in diesel fuel] will have a dramatic impact on our air quality".

Mr. Lukey added that government was to continue encouraging industry's compliance with its air quality standards, and a list of "controlled emitters" was soon going to be published by the DEAT in a move to reduce the pollution caused by motor vehicles.

One of the first controlled emitters the department would be looking at is motor vehicles, said Mr. Lukey, adding that air pollution studies had found that the major cause of the "brown haze" that people saw covering the country's cities was due to vehicle emissions.

One of these studies found that diesel vehicle emissions were the main cause of the brown haze that covered the city regularly. Ivan Bromfield, a health manager at the City of Cape Town, confirmed this saying that a Brown Haze study found that diesel vehicle emissions caused 48 per cent of haze, petrol vehicles were responsible for 17 per cent and industry emissions were behind 13 per cent.

## **78. Crazy Drivers Behind Wheels Put Tanzania Crater in Jeopardy**

The Ngorongoro crater tagged the 'Eighth Wonder of the World,' may soon turn into an unsightly dust bowl if measures to control the influx of vehicles into the crater are not taken promptly. Complaints have been raised by concerned residents in the Ngorongoro conservation area, that vehicles which take visitors into the crater are being driven recklessly with driver-guides competing to beat each other in reaching particular spots.

The tour drivers are also reported to frequently breach regulations meant to safe-guard the natural habitats of the crater, such as driving off tracks, taking shortcuts and piling large numbers of vehicles in a particular area, while their passengers take photos of animals.

In addition to rare natural vegetations, sections of virgin land features and abundant water bodies, the Ngorongoro crater, which is the world's biggest, unbroken, volcanic caldera, is also home to over 25,000 species of large mammals, variety of birds and innumerable crawling creatures.

When the issue of reckless driving was raised to him by phone, the Public Relations Officer for the Ngorongoro Conservation Area Authority, Vincent Mbirika said the NCAA was aware of the complaints and the authority was working with park wardens to control the situation. He added that whenever the culprits are caught, they got fined Tsh.10, 000.

Considering however that a particular driver-guide may earn a tip amounting to US\$ 100 (about Tsh.120, 000) or more, from the tourists in his vehicle, for simply beating other vehicles in reaching a spectacular spot, where for instance, the lions are mating, or where the leopards have just overpowered a large mammal, the Tsh.10, 000 fines may be regarded as a joke.

Mbirika also refuted the allegations from Ngorongoro residents, that even some NCAA officials and members of staff, were on fore front in this over-speeding within the conservation area. The speed limit within Ngorongoro is fixed at 50 KPH.

The rule that seems to be strictly observed so far is the directive that all vehicles that are to go down into the crater should be 'Four-Wheel Driven' because of both the steepness of the crater walls and the driving tracks conditions.

"It is a common thing for a former log-truck driver or those who used to drive street commuter vans to be given a vehicle full of tourists by some dubious dealer, pointed out Mustafa Akonaay, the Executive Secretary of TATO.

According to Akonaay, local tourism stakeholders had already met with NCAA officials to address the problem and among the agreements was the need to cut down by 50 percent, the time spent by both the visitors and their vehicles in the crater.

Between 2003 and 2005 about 856,000 tourists (both foreign and local visitors), went down the caldera, generating an income of Tsh. 33.2 billion, raised within the three years period.

## **79. Durban Study Links Children's Respiratory Problems to Industrial Pollution**

Officials from the eThekweni Municipality earlier this month released a health study that links high levels of asthma and cancer risk in low-income neighborhoods in Durban to pollution from nearby oil refineries and other heavy industries. The three-year study, commissioned by the municipality, found that the prevalence of asthma and indicators of respiratory ailments was "significantly" higher in school children from the south basin of the city than it was in children from the city's more affluent northern suburbs.

The study, which involved screening 423 children and also analyzing local pollution levels, found higher levels of pollutants linked to both asthma and cancer in the south than in the north. It was conducted by the Center for Occupational and Environmental Health at the University of KwaZulu-Natal and the Department of Environmental Health Sciences at the University of Michigan.

High concentrations of sulfur dioxide, particulate matter, and nitrogen oxides "cause poorer lung function among children living in Durban who have persistent asthma or who are genetically predisposed to asthma," the report said. It continued that reducing the levels of air pollution would probably lead to a reduction in the rates and severity of asthma in children.

In addition, researchers conducting the study found "elevated levels" of cancer-causing chemicals, including benzene and chromium, in south Durban.

These pollution-related health problems, the report said, stem from a legacy of apartheid-era policies of situating working-class neighborhoods near industries. South Durban residents live in close proximity to major chemical plants, motor and metal manufacturers, and the Durban harbor, which is the busiest port in Africa.

Rapid economic and industrial growth in recent years has exacerbated the situation, along with outdated air quality legislation. Now, environmental advocates hope comprehensive new legislation, the National Environmental Management: Air Quality Act [No. 39 of 2004], signed into law in February 2005, will lead to better air quality. The act is being implemented in stages.

But environmental groups hope the release of the study will spur immediate action locally. "This study that has been released vindicates what we have known all along, that there are high levels of asthma and cancer because of the pollutants in the air," said Desmond D'Sa, a representative for the South Durban Community Environmental Alliance (SDCEA).

The SDCEA and the local environmental group groundWork, which both fought for years to have a health study carried out in the area, called on the government to follow the study's recommendations, which are to tighten local air quality standards, review the permits of all local polluters, and step up monitoring and enforcement of environmental laws in the area.

D'Sa said the groups would also consider launching class action lawsuits against industries for the harm they have caused to public health. It was pressure from local environmental groups, he said, that in 2000 led to the national government's establishment the South Durban Multipoint Plan, which is a joint effort between government, industry, and community groups to document the effects of pollution and

improve local air quality management.

The study was undertaken as part of the Multipoint Plan. D'Sa said groundWork and the SDCEA had forced government to act by gathering air samples which showed high levels of numerous toxics, including methylene chloride, carbon disulphide, and benzene. The groups have continued to monitor local air quality independently.

According to officials, the Multipoint Plan has already led to some improvement. A year ago, Deputy Minister for the Environment Rejoice Mabudafhasi visited South Durban and hailed the Multipoint Plan as a successful approach to combating air pollution in communities. In a speech in August 2005 she said the plan had prompted local industries to invest heavily in new pollution-reducing technologies and that a 45 percent reduction in local sulfur dioxide emissions had been achieved through the program.

Together with the implementation of the new Air Quality Act, she said, the Multipoint Plan could provide a model for improving air quality in other heavily polluted locales such as the Vaal Triangle, which was recently declared the country's first pollution "hotspot" under the new air quality legislation.

## **GENERAL**

### **80. Surge in Greenhouse Gas Emissions Forecast Through 2030**

Total global carbon dioxide emissions produced through energy use will increase 75 percent from current emissions by 2030, largely due to increased demand for energy in the developing world, the Energy Information Administration said in its long-term energy forecast released June 20.

Energy-related carbon dioxide emissions are projected to rise from 25 billion metric tons in 2003 to 33.7 billion metric tons in 2015 and to 43.7 billion metric tons in 2030, according to EIA, the statistical arm of the U.S. Department of Energy. Much of the projected increase in emissions of the greenhouse gas will likely occur in the world's developing regions, due to increasing combustion of fossil fuels, according to the report, International Energy Outlook 2006.

Developing nations will account for three-fourths of the projected growth in carbon dioxide emissions through 2030, according to the forecast.

EIA's forecast is based on the assumption that all current national laws and regulations in place as of Jan. 1, 2006, will not be changed through 2030.

Energy use in Asian developing countries is expected to nearly triple over the next three decades, according to EIA. Overall, the EIA's long-term forecast for world energy markets predicts a 71 percent increase in world energy consumption by 2030.

Fossil fuels (oil, natural gas, and coal) will continue to supply much of world's energy, and oil will remain the dominant energy source through 2030, given its importance in the transportation sector, according to EIA.

Oil prices, which are expressed this year as the average price of high quality, low-sulfur

crude oil imported into the United States, will rise from \$31 per barrel in 2003 to \$57 per barrel in 2030. (Prices are in inflation-adjusted 2004 dollars.) EIA analysts consider record crude oil prices above \$70 per barrel over the past year to be an anomaly and not indicative of the long-term trend. Those analysts see world oil prices declining gradually to \$47 per barrel in 2014, and then rising by 1.2 percent per year to \$57 per barrel in 2030.

### **81. IEA Says Increased Use of Technology May Curb Energy Consumption**

Greater use of existing and rapidly developing technology could curb both energy consumption and carbon dioxide emissions over the long run, and it might offer countries the best potential solution for staving off climate change, according to a new report released June 22 by the International Energy Agency.

In *Energy Technology Perspectives: Scenarios and Strategies to 2050*, the Paris-based IEA suggests that widespread use of clean and more efficient energy technology could see today's soaring energy demand and carbon dioxide emissions drop back to current levels by 2050.

The IEA report uses a series of implementation scenarios to demonstrate the role that new and emerging technology may play in future energy markets. It assesses the current status and prospects for key energy technology in the power generation sector, as well as in buildings, industry, and transport.

Accelerating energy efficiency improvements could reduce the world's energy demand in 2050 by an amount equivalent to nearly half of today's global energy consumption, the IEA said.

Finally, the IEA warned governments that the transport sector remains the key to reducing growth in oil demand.

"Biofuels and more efficient vehicles can reduce the expected growth in oil demand for transport by almost 50 percent," IEA said.

The IEA suggests that the reduction of transport fuel use could be the main contributor to total savings of 42 million barrels of oil per-day by 2050, equal to about half of today's global oil consumption.

Hydrogen could also play "an important role in the transport sector," IEA said; but for this to happen, governments and private-sector researchers must push for technological breakthroughs to reduce costs and major investments in infrastructure.

Under a scenario that builds on the most optimistic assumptions--in which hydrogen fuel-cell vehicles achieve significant market share in 2050--carbon dioxide emissions would be even lower than today, and more importantly, they would be set to drop even further after 2050, the IEA said.

### **82. WHO Report Shows Massive Health Effects Of Environmental Pollutants**

As much as 24% of global disease is caused by environmental exposures which can be



averted. Well-targeted interventions can prevent much of this environmental risk, the World Health Organization (WHO) demonstrated in a recent report<sup>2</sup>. The report further estimates that more than 33% of disease in children under the age of 5 is caused by environmental exposures. Preventing environmental risk could save as many as four million lives a year in children alone, mostly in developing countries.

The report is the most comprehensive and systematic study yet undertaken on how preventable environmental hazards contribute to a wide range of diseases and injuries. By focusing on the environmental causes of disease, and how various diseases are influenced by environmental factors, the analysis breaks new ground in understanding the interactions between environment and health. The estimate reflects how much death, illness and disability could be realistically avoided every year as a result of better environmental management.

The report estimates that more than 13 million deaths annually are due to preventable environmental causes. The four main diseases influenced by poor environments are diarrhea, lower respiratory infections, various forms of unintentional injuries, and malaria.

Diseases with the largest total annual health burden from environmental factors, in terms of death, illness and disability or Disability Adjusted Life Years (DALYs)<sup>3</sup> are:

- Diarrhea (58 million DALYS per year; 94% of the diarrhea burden of disease) largely from unsafe water, sanitation and hygiene
- Lower respiratory infections (37 million DALYS per year; 41% of all cases globally) largely from air pollution, indoor and outdoor.
- Unintentional injuries other than road traffic injuries (21 million DALYS per year; 44 % of all cases globally), classification which includes a wide range of industrial and workplace accidents.
- Malaria (19 million DALYS per year; 42% of all cases globally), largely as a result of poor water resource, housing and land use management which fails to curb vector populations effectively.
- Road traffic injuries (15 million DALYS per year; 40% of all cases globally), largely as a result of poor urban design or poor environmental design of transport systems.
- Chronic Obstructive Pulmonary disease (COPD) -- a slowly progressing disease characterized by a gradual loss of lung function. (COPD, 12 million DALYS per year; 42% of all cases globally) largely as a result of exposures to workplace dusts and fumes and other forms of indoor and outdoor air pollution.
- Perinatal conditions (11 million DALYS per year; 11% of all cases globally).

Most of the same environmentally-triggered diseases also rank as the biggest killers outright -- although they rank somewhat differently in order of lethality. Diseases with the largest absolute number of deaths annually from modifiable environmental factors (these are all parts of the environment amenable to change using available technologies, policies, preventive and public health measure). These diseases include:

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<sup>2</sup> Preventing Disease Through Healthy Environments - Towards an Estimate of the Environmental Burden of Disease

<sup>3</sup> DALYs = Disability Adjusted Life Years: The sum of years of potential life lost due to premature mortality and the years of productive life lost due to disability.

- 2.6 million deaths annually from cardiovascular diseases
- 1.7 million deaths annually from diarrhea diseases
- 1.5 million deaths annually from lower respiratory infections
- 1.4 million deaths annually from cancers
- 1.3 million deaths annually from chronic obstructive Pulmonary disease
- 470,000 deaths annually from road traffic crashes
- 400,000 deaths annually from unintentional injuries

The report shows that one way or another, the environment significantly affects more than 80% of these major diseases. By acting assertively and setting priorities for measures aimed at curbing the most serious killers, millions of unnecessary deaths can be prevented every year. Working with sectors such as energy, transport, agriculture and industry to ameliorate the root environmental causes of ill health is crucial.

### **83. Smog Damage To Crops Costing Billions**

The internal combustion engine contributes massively to global warming, kills around 1.2 million people a year in road accidents and, scientists now warn, is costing billions of dollars in crop damage each year.



The villain is ozone. Formed by a reaction between nitrogen oxides and volatile organic compounds emitted by road traffic, ozone smog can be a life-shortening problem for people with bad respiratory problems.

Another fast-emerging picture is that this pollution is also inflicting a rising bill in damage to food plants, especially in regions where hot, sunny, windless conditions favor ozone formation.

Frank Raes, a Dutch scientist at the Joint Research Center in Ispra, a unit funded by the EU's executive Commission, estimates that each year India loses five billion dollars in crops because of ozone, followed by China, with 2.5 billion dollars. They are followed by Iran, Pakistan, Turkey and the east and west coasts of North America.

By 2030, says Raes, India will lose 20 percent of its crops through damage, compared with less than five percent through man-made global warming.

An assessment of 45 countries made in 2002 for the UN Economic Commission for Europe found that ozone is already costing farmers in Europe and the former Soviet Union more than six billion euros (7.5 billion dollars) a year.

Ozone enters plants through respiratory pores in the leaves. It then produces byproducts that crimp efficiency in photosynthesis, leaving a plant that is weak and undersized -- and with a crop size and quality to match.

Before industrialization, annual mean ozone concentrations were between 10 and 15 parts per billion (ppb). In an industrialized country, levels have been rising annually by between 0.5-2.5 percent.

The problem is that there can be big peaks, depending on the season, local topography and weather. Also ozone levels are highest in summer, when crops are growing. And, ironically, they are often highest in the countryside. Ozone smog originates in the city but it takes several hours to form through local atmospheric chemical reactions, and then drifts to rural areas.

A 2003 study by University of Illinois researchers found that in Illinois, part of the US grain belt, the average concentration is 64 ppb, with occasional daily spikes as high as 120 ppb. The team grew a batch of soybeans in ozone of 62 ppb and another at 75 ppb, which corresponds to an expected 20-percent increase in ozone levels by 2030. The plants that grew in 75 ppb of ozone lost 20 percent of their harvest compared with the 62 ppb group.

Ozone and global warming are linked, as both are caused by the fossil fuels and both are cross-border problems.

#### **84. G-8 Leaders Reaffirm Commitments To Reduce Greenhouse Gas Emissions**

On July 17<sup>th</sup>, leaders of the Group of Eight industrialized nations concluded their annual summit with a pledge to address increasing global energy demands through support for renewables and other sources, but only reaffirmed existing G-8 commitments to cut greenhouse gas emissions.

The G-8 leaders, meeting in St. Petersburg, Russia, said in their "Plan of Action on Global Energy Security" that the growing demand for energy is likely to mean continued reliance on fossil fuels for the foreseeable future. But the leaders pledged to support research and funding of "innovative alternatives" including renewable energy to help meet increased demand and reduce greenhouse gas emissions produced through combustion of fossil fuels.

Leaders within the G-8--which consists of Canada, France, Germany, Italy, Japan, Russia, the United Kingdom, and the United States--also reaffirmed their commitment to an ongoing G-8 Dialogue on Climate Change, Clean Energy, and Sustainable Development. The leaders said that dialogue will culminate in a report at the 2008 G-8 summit.

The July 16 action plan also acknowledged in passing the existing disagreement between the top industrialized nations on how to best curb greenhouse gas emissions, stating that "those of us who have ratified the Kyoto Protocol recognize the role of its flexibility mechanisms in promoting energy efficiency." The Kyoto Protocol went into effect in February 2005.

The action plan also notes that the debate over mandatory and voluntary approaches to curtail greenhouse gas emissions continues, even as demand and competition for energy continue to soar worldwide.

Worldwide energy demand is likely to increase by more than 50 percent by 2030, the G-8 document said, "approximately 80 percent of which would still be met by fossil fuels, which are limited resources."

The global energy action plan also called upon other nations, "especially fast-growing developing economies, to join" the G-8 countries in their "corresponding" initiatives, a reference to the continuing debate over whether nations such as China and India should also commit to reducing their greenhouse gas emissions. While most industrialized nations--including seven members of the G-8--have ratified the Kyoto Protocol, developing nations have not been called upon to commit to mandatory cuts.

### **85. Global Warming Altering Arctic Ecosystems Scientists Say**

Increasing global temperatures are rapidly altering a range of life forms in arctic ecosystems, from polar bears down to the smallest parasites, researchers said on July 14<sup>th</sup>. The climate-driven changes, which are accelerating along the northern latitudes, are being detected in relatively new life cycles in parasites, according to Susan Kutz, associate professor of wildlife and ecosystem health at the University of Calgary, Canada. Kutz and other researchers discussed the ecosystem impacts at a seminar sponsored by the American Meteorological Society.

Kutz said that as the arctic climate has warmed over the last three decades, she and other researchers have detected a shift in the transmission cycle of one parasitic worm, the *Umingmakstrongylus pallikuukensis*. The parasitic worm is carried by the musk ox, a large ox-like mammal that lives in northernmost Canada and Alaska's Arctic National Wildlife Refuge.

The life span of the parasite has shifted over that period from a predominantly two-year to a one-year cycle, bolstering its ability to infect such large wild mammals as well as livestock and increasing the parasites' geographical range, Kutz said. Increased levels of infection and expansion of the geographic range of parasites in the arctic is a concern because even minute changes in such parasites can profoundly impact the chain of animals that can be infected, from marine to terrestrial animals such as musk oxen, she said.

Rising temperatures in the arctic region "are already having real impacts" on wildlife, but less is known about how small parasites and other tiny forms of life are reacting to such changes, Kutz said.

With some scientists predicting a warming of the arctic region by several degrees by 2080, "it is certainly going to release a lot of those pathogens from the constraints" of a colder climate that suppresses their ability to be quickly transmitted from animal to animal, she said.

Historically, the arctic region has had "very harsh, long winters and a short summer, and all the animals and the pathogens there have adopted strategies to cope with that," she said. It is not known whether larger mammals will be able to quickly adapt to pathogens strengthened by the warmer climate, she said.

Steven Amstrup, a research wildlife biologist with the U.S. Geological Survey's Alaska Science Center in Anchorage, said researchers in the last two years have documented several instances in which polar bears--which feed for months on the ice before moving to land as summer approaches--appear to have starved to death or have cannibalized

other polar bears to survive.

"For the first time, in 2004, we had three cases of polar bears that had been cannibalized by other bears," Amstrup said.

"Now the killing of one bear by another is not necessarily a rare event, but these circumstances were different from anything we've seen--it was clear that large adults males aggressively hunted and pursued these [other bears] and ate them, just as they kill seals" for food, the USGS researcher said.

Polar bears are generally tied to the sea ice, and dine almost exclusively on seals, according to a summary of the seminar provided by the researchers.

Over the past 25 years, summer sea ice cover in the arctic region has declined by more than a half a million square miles, according to the summary.

Since the spring of this year, Anchorage science center researchers have found four other dead polar bears on sea ice and have confirmed from tissue samples that two of them starved to death, Amstrup said.

"In both cases, they starved to death. They totally depleted their bone marrow lipid reserves," which act as the last possible repository for cellular fuel storage in mammals, he said. Only the skeletal remains of a third bear were found, making it difficult to determine the cause of death, Amstrup said.

In early July, the researchers found the remains of a fourth polar bear, and they believe that animal also starved to death but are awaiting a review of tissue samples, he said.

## **86. U.N. Takes Steps on Transporting Hazardous Containers, Fuel Cells**

Technical experts on the transport of hazardous materials agreed at a meeting July 3-12 to provisions on the strength of containers and on the transport of fuel cells and small amounts of some substances, but they failed to reach a consensus on pharmaceutical samples and lithium ion batteries.

The meeting of the U.N. Economic Commission for Europe's Subcommittee of Experts on the Transport of Dangerous Goods was the third of four scheduled meetings under the current biennial review of the U.N. Model Regulations for the safe transportation of dangerous goods. Many countries use the Model Regulations to adopt national regulations on hazardous materials transport.

The experts once again failed to endorse a proposal from battery producers that could have eased restrictions on the shipment of lithium ion rechargeable batteries. The proposal from the Portable Rechargeable Battery Association (PRBA) would create a new classification entry for lithium ion batteries, separate from the current heading for lithium metal batteries.

In a submission, the United States expressed opposition to the proposal, charging that it would create the misperception that one type of battery is safer than the other. "Lithium ion batteries may be less reactive from a chemical hazard point of view," but their

electrical hazard (ability to short circuit and initiate a fire) is as great as that of lithium metal batteries, the United States said. Other experts argued that there was no need for a new entry covering lithium ion batteries as the proposed conditions of transport appeared to be the same as those applicable to lithium batteries.

The experts did agree on a proposal from France and the United States to develop new classification entries for fuel cell cartridges containing certain hazardous substances. The proponents argued that as the commercialization phase of fuel cell development approaches, there is a need to transport fuel cell cartridges containing fuel for these cells. The proposal "will provide for the safe and efficient transport of these fuel cells and cartridges, as well as consumer electronic devices containing or packed with these fuel cells or cartridges," France and the United States argued.

Each fuel cell cartridge design type must pass a 1.2 meter drop test, while fuel cell cartridge design types made for liquid fuels must pass an internal pressure test at a pressure of 100 kilopascal (kPa) (gauge).

### **87. UNFCCC Approves First Large-Scale Transport Methodology**

The Executive Board of the UNFCCC approved at its July 2006 meeting the first transport methodology for large-scale CDM projects. The methodology is applicable to urban transport projects, specifically Bus Rapid Transit (BRT) systems. The methodology was developed by grütter consulting on behalf of the Andean Development Corporation CAF with application to the case of TransMilenio in Bogotá, Colombia. Registration of the project is expected this year.

Grütter consulting is one of the world's leading companies in the field of GHG and transport. The company is currently developing PDDs for various BRT projects and has in its portfolio numerous CDM transport projects in fields such as bio-fuel production, mass urban transport systems or modal-switch (road-to-rail and road-to-ship) projects.

Grütter consulting has also successfully developed and negotiated on behalf of the Swiss private sector energy agency EnAW with 80 transport companies an agreement to sell CO<sub>2</sub> reductions from measures such as logistics improvement, mode-switch, usage of bio-fuels, fleet optimization and eco-efficient management practices. Emission reductions are sold to the Swiss Climate Cent Foundation starting 1.1.2006 and are accounted against the Swiss climate change targets.

### **88. UN Says Ozone Layer Recovery Will Be Slower Than Expected**

The earth's ozone layer is finally on the mend after decades of damage, two UN agencies have reported. However, the World Meteorological Organization (WMO) and the UN Environmental Program (UNEP) said the protective layer, which filters dangerous solar radiation, was recovering more slowly than experts had originally hoped.

Over huge areas of Europe, North America and Asia in the northern hemisphere and over southern Australasia, Latin America and Africa, the layer would be back to pre-1980 levels by 2049, the agencies said. This was five years later than forecast in the last major scientific report in 2002. Over Antarctica, where so-called "ozone holes" have grown over the past 30 years, recovery was likely to be delayed until 2065, 15 years

later than earlier hoped.

The agencies' message came in an official summary of a report by 250 scientists to be issued next year on the effects of the 1987 Montreal Protocol, which committed signatory nations progressively to ban the use of ozone-harmful products.

"The early signs that the atmosphere is healing demonstrate that the Montreal Protocol is working," said Achim Steiner, executive director of UNEP. "But the delayed recovery is a warning that we cannot take the ozone layer for granted and must maintain and accelerate our efforts to phase out harmful chemicals," he said in a statement issued in Geneva and Nairobi.

"While these latest projections of ozone recovery are disappointing, the good news is that the level of ozone-depleting substances continues to decline from its 1992-94 peak in the troposphere and the 1990s peak in the stratosphere," said WMO secretary-general Michel Jarraud.

WMO and UNEP said the revision of the ozone recovery dates over parts of the northern and southern hemispheres was mainly due to signs that increased amounts of some types of CFCs not immediately banned under the Protocol were being used. Another reason for the change in the forecast was that estimates had been increased of future production levels of HCFC-22, a CFC substitute, which although much safer, still causes some ozone depletion.

The later projected recovery of the Antarctic ozone layer is primarily due to what the agencies called "the greater age of air in that region". This meant that "a return to pre-1980 levels of ozone depleting substances will take longer".