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RATIFICATION NEWS

1) KYOTO PROTOCOL AWAITS NOD FROM RUSSIA'S PUTIN

Reuters

July, 4, 2003

Internet: <http://www.alertnet.org/thenews/newsdesk/L01632214.htm>

MOSCOW, July 4 (Reuters) - Russia's economy ministry said on Friday that the Kyoto Protocol would not harm Russian interests and that ratification of the landmark environmental pact was a political question awaiting a nod from the Kremlin. Members of the State Duma lower house of parliament said the treaty, which aims to cut global emissions of climate-changing gases, would only go through when President Vladimir Putin gave deputies the word. "Ratification does not carry any special risks for the Russian Federation. We are not against it," Deputy Economy Minister Mukhamed Tsikanov, who is responsible for ecological issues, told Reuters. "The Duma will vote on it, and there is of course a risk that it will not be ratified. But that is because we are a democratic country," he said in an interview.

The Duma, which is dominated by pro-Kremlin parties, is on summer recess and returns to session in early September, giving it only a month to ratify the treaty before an ecological summit in Moscow aimed at discussing the treaty's future. Under the Kyoto Protocol's complex weighting system, its system of emission quotas would only come into force when nations accounting for 55 percent of emissions ratified it. The United States, the world's largest polluter, pulled out of the treaty in 2001, and it can only be implemented if Russia, which accounts for 17 percent of emissions, approves it. Most Russian

parliamentarians support the protocol, said Robert Nigmatulin, chairman of a State Duma lower house of a parliament committee that advises on ecological issues. "I am in favour of it, and I think most deputies are in favour of it," the Duma deputy said. "The treaty has to be ratified by the Duma, but it is the president that will decide."

Putin has not committed himself to a timescale to ratify the treaty, although his latest comments were interpreted as being broadly in favour of ratification. "If everything that was written in the Kyoto Protocol came into effect, it would not solve the problem," he told students in Kaliningrad last week. "(But) it is true, as my European colleagues say, that it is a step in the right direction." Russian emission levels, primarily of carbon dioxide, were assigned before the post-Soviet economic meltdown. Hence, it has substantial spare capacity which it could sell to other polluters, although Tsikanov was worried that without the United States, Russia might have trouble finding as big a market as it was originally counting on. "The most we will emit is 2.2 billion tonnes of emissions a year in 2008-2012," he said. "In those four years, we will have some three billion tonnes of quotas unused." "The Kyoto countries will need about one billion tonnes by our reckoning, that is a maximum. And these quotas could also be bought in other places, like Ukraine, or Kazakhstan or Africa." He said the revenues from quota sales were crucial for modernisation, and cutting Russian dependence on oil and gas, which account for more than half of budget revenues.

2) KYOTO UNDER RUSSIAN CLOUD

Reuters

July 2, 2003

Internet: <http://www.alertnet.org/thenews/newsdesk/L02651272.htm>

The head of the UN panel on climate change said on Wednesday that any failure by Russia to ratify a pact on global warming would mean almost a decade had been wasted in efforts to protect the environment. "The whole world is waiting with bated breath on what Russia's going to do," Rajendra Pachauri told Reuters of Moscow's delays in ratifying the United Nations' Kyoto Protocol. "We need to know one way or another." Under a complex weighting system, Russian ratification is the key to whether the 1997 Kyoto pact on limiting climate change will enter into force. Only if nations accounting for 55% of emissions sign up can the protocol take effect.

The United States, the world's biggest polluter, accounts for about one-third of all emissions, but US President George W. Bush withdrew from the pact in 2001. Russian Prime Minister Mikhail Kasyanov told an Earth Summit in Johannesburg last September that Moscow would ratify Kyoto "in the near future". "I'm afraid that if Kyoto is not ratified we will have lost about eight or nine years chasing what might turn out to be a mirage," said Pachauri, chairman of the Intergovernmental Panel on Climate Change. Asked if he had any idea when Russia might ratify the agreement Pachauri, speaking on the sidelines of an environmental conference in the Norwegian capital, replied: "God knows." "If you talk to 10 different people you get 10 different views of what Russia is likely to do...I don't know why it's taking so long," he said.

The Kyoto pact aims to cut emissions of gases like carbon dioxide, blamed for blanketing the planet and pushing up temperatures, to about 5% below 1990 levels. Pachauri said Russian ratification would allow the world to move on and act more strongly to curb global warming, blamed by many scientists for phenomena ranging from rising sea levels to more extreme weather like floods and droughts. "The whole world has been consumed with Kyoto and we've not looked at the longer term," he said. "The sooner we get the Kyoto protocol out of the way the better." "The Kyoto Protocol is in a sense only going to scratch the surface," he said, adding that the world needed to do far more to reduce reliance on fossil fuels, for instance by shifting to renewable energy and raising energy efficiency.

3) RUSSIA WANTS TIME TO ASSESS ECONOMIC IMPLICATIONS OF KYOTO PROTOCOL RATIFICATION

Pravda

June 26, 2003

Internet: <http://newsfromrussia.com/main/2003/06/26/48733.html>

Russia will want time some to assess possible economic implications of the ratification of the Kyoto Protocol. The adoption of Kyoto Protocol documents on cutting carbon dioxide emissions into the atmosphere is very much due to Russia's active position in this matter, Russian Vice-Premier Viktor Khristenko told a RIA Novosti press conference. Russia will decide whether or not to join the protocol only upon minute assessment of all the pros and cons related to its commitments under the protocol. Moscow's steps in this direction have to be agreed with Russia's energy strategy and the average-term program for its economic development, said Khristenko. "Economic examination will take time. But it will not take years and a decision can be taken much faster," he said.

See Also:

Russia to Consider Ratifying Kyoto Protocol, People's Daily, June 27, 2003;

Internet: http://english.peopledaily.com.cn/200306/27/eng20030627_118985.shtml

4) PUTIN URGED TO RATIFY KYOTO PACT

CNN

June 26, 2003

Internet: <http://edition.cnn.com/2003/WORLD/europe/06/26/britain.putin/>

LONDON, England -- Russian President Vladimir Putin is being urged to ratify the Kyoto Protocol aimed at reducing greenhouse gas emissions as he opens a high-level energy conference in London.

Environmentalists say a \$6 billion joint venture between British and Russian oil companies -- agreed on Thursday -- will be disastrous for the planet unless the Kyoto pact is in place. Much of the agenda for Thursday's conference concerned the exploitation of Russia's huge gas reserves, with British oil company BP signing the deal to buy 50 percent of Russia's TNK oil firm and discussions about a gas pipeline from Russia to Germany and possibly Britain. The agreement to create the third-biggest oil and gas company means Britain is now the leading investor in Russia.

But environmental group Friends of the Earth pointed out that British Prime Minister Tony Blair had called for a "concerted international effort" to fight climate change and called on him to put pressure on Putin during his state visit to the UK. "Without (the Kyoto) international climate change agreement in place there should be no deals between the UK and Russia to exploit its fossil fuel reserves," FoE spokesman Bryony Worthington told the Press Association. The protocol, brokered by the United Nations in 1997 but not incorporated into law by Russia or the United States, sets a legally binding target on nations to reduce their emissions of carbon dioxide that most scientists believe cause extreme weather patterns.

Continuing the first state visit by a Russian leader to Britain in more than 125 years, Putin held talks with Blair later Thursday during which the leaders were set to discuss concerns over Iran's nuclear program and the aftermath of the war in Iraq. The issue of Iran's nuclear program was expected to be high on the agenda, the Press Association reported, amid Western concern that Tehran's civil power facilities, built with Moscow's help, could conceal a weapons program. Blair was set to warn Putin that material supplied by Russia could be diverted for military purposes, PA said. The Russians insist though they are complying with United Nations rules on the export of nuclear-related materials. On Wednesday, Putin and his wife toured Scotland before returning to London for a banquet at which he told business leaders Russia had been following far-reaching reforms to make the country more democratic and business-orientated.

"Today we are a more attractive partner for Europe and for the whole world. We are creating better conditions for business for the benefit of investors," he said. On Tuesday Queen Elizabeth II sought to heal wounds from the war on Iraq, which Britain supported and Russia opposed. In her official welcoming speech at Buckingham Palace, the queen said: "It is no secret that there were significant differences between our two countries earlier this year on how best to handle Iraq. "But as we look ahead, we know that our long-term partnership is of profound importance to both of us," she said.

5) MATTEOLI, KYOTO A FUNDAMENTAL STEP FOR THE ENVIRONMENT

AGI

June 25

Internet: <http://www.agi.it/english/news.pl?doc=200306251822-0242-RT1-POL-0-NF82,EU04&page=0&id=agionline-eng.italyonline>

The Kyoto Protocol is a "fundamental step" for the entire world, and if Russia does not ratify it, "everything must be rethought," said the Minister of Environment Altero MATteoli during the press conference presenting the environmental agenda of the Italian presidency of the EU. "There are people who believe that Europe is able to forge ahead on its own in case Russia does not ratify the Protocol, but I believe that it cannot be this way, and I have serious doubts that it can proceed in the same manner. Acutally, in case the Moscow government does not ratify the protocol, I believe that the possibilities of realising what is indicated in the protocol are very slim," he said.

The subject is at the head of the list of priorities on the environment of the Italian presidency, and Russia ratification is "essential in giving credibility to Europe's commitment." Matteoli said that they will work in order to arrive at the Moscow Conference on Climate Change, which is scheduled for the end of September, as an unrepeatabe and last opportunity to have the Russian ratification, with an announcement by President Putin. An announcement that would come on the eve of the Russian elections, which will take place in November. In this prospect, it is important to foresee, after the letter that the Italian Foreign Minister Frattini wrote to his Russian counterpart Ivanov, "a further initiative by Italy at the Russian government, perhaps in the format by Troika with Ireland and the Commission." And concerning this, taking note that Russia is evaluating the most advantageous conditions for the ratification, in the form of direct and indirect aid from the EU, Matteoli started a program of collaboration with the Russian Energy Minister for the increase of efficiency and the reduction of emissions at the same time. A program that will be a pilot project of joint implementation, which is the mechanism instituted by the Kyoto Protocol for the technological cooperation amongst developed countries. (AGI)

6) RUSSIAN RATIFICATION ESSENTIAL FOR KYOTO PROTOCOL: ITALIAN MINISTER

XINHUANET

June 25, 2003

Internet: http://news.xinhuanet.com/english/2003-06/26/content_938059.htm

ROME, June 25 (Xinhuanet) -- Russia's ratification of the Kyoto Protocol is of fundamental importance to Europe's stance on the issue of environmental defense, Italy's Environment Minister Altero Matteoli declared here Wednesday. Matteoli made his comments while presenting his ministry's program for Italy's six-month presidency of the European Union, which gets underway on July 1. If Russia fails to ratify the protocol, everything will have to be reconsidered," he said, adding however that it seemed willing to take that step. Matteoli explained he had consequently set up a cooperation program with Russian Energy Ministry, geared towards financing energy projects in the former Soviet Union that would boost efficiency and reduce emissions.

The Kyoto Protocol requires industrialized nations to cut their emissions of greenhouse gases, primarily carbon dioxide from cars and industry, which are believed to be responsible for global warming. Before it

can be implemented, it must be ratified by at least 55 countries responsible for 55 percent of the world's 1990 emissions. The Italian environment minister also said he was "happily surprised" at the "enthusiasm for Europe" he noted during recent meetings with the 10 future EU members, which will join the bloc next year. Meanwhile, Matteoli declared that Italy's six-month EU presidency would highlight business opportunities offered by the environment. He revealed that eight environmental events were planned for the coming months, focusing on a range of topics, including energy, the Mediterranean, and the environmental and economic integration between member states.

7) RESEARCHERS RATTLED AS KYOTO HANGS IN THE BALANCE

SciDev. Net

June 19, 2003

Internet: <http://www.scidev.net/News/index.cfm?fuseaction=readNews&itemid=868&language=1>

Climate researchers in Europe are expressing concern about the objectives of a conference to be held in Moscow in September. They fear that sceptics in Russia want to use the meeting to help block ratification of the Kyoto Protocol on climate change. At least 55 countries that were jointly responsible for 55 per cent of the industrialised world's carbon dioxide emissions in 1990 must ratify the agreement for it to come into force. Russia's ratification would succeed in bringing the agreement into effect.

But several scientists, who didn't want to be named, have revealed their unease about the forthcoming World Climate Change Conference, after attending a programme committee meeting in Moscow last month. The researchers said that they had considered boycotting the September meeting, but had decided against it on the basis that this would offend the Russians and could jeopardise climate negotiations both within and outside the country.

8) BONN CLIMATE CONFERENCE ENDS ON UPBEAT NOTE

Deutsche Welle

June 14, 2003

Internet: http://www.dw-world.de/english/0,3367,1446_A_893730_1_A,00.html

Scientists believe global warming is melting sea ice in the Arctic at an alarming rate. A two-week U.N. climate conference in Bonn, which ended Friday, for the first time focussed on concrete projects in developing nations designed to reduce emission of greenhouse gases widely blamed for global warming. Most industrial nations, with the notable exception of the United States, the world's biggest polluter, have ratified the 1997 Kyoto protocol which seeks to reduce richer nations' emissions of gases blamed for the phenomenon. The Kyoto protocol also has a provision for "clean development mechanism" – which allows richer nations to fund projects such as wind farms and solar energy parks in developing countries and get credits towards their own goals of cutting emissions of carbon dioxide and other greenhouse gasses.

At a two-week United Nations climate conference in Bonn, which came to an end Friday, delegates for the first time reviewed 12 concrete projects presented to the U.N. body ranging from landfill plants in emerging economies to wind farms. Though delegates failed to approve a single project, the message was that though most projects contained valuable ideas, they did not comply with the strict criteria of the U.N. panel drawn up to assess them.

ENVIRONMENTAL INTEGRITY A CRUCIAL TOPIC

Axel Michaelowa, head of climate research at the Hamburg Institute of International Economics told Deutsche Welle that the failure to accept even a single project wasn't necessarily a setback. "It made unmistakably clear that environmental integrity is a major issue and that projects have to show that they are additional. Which means that they would not have happened under business as usual," Michaelowa said. He

added that many developers were given a sobering signal: "Many developers tried to scrape through and they got a clear signal: stop, these types of projects will not be accepted."

However the backers of several projects will, still be able to resubmit revised applications at the end of the month. These include advocates of a landfill plant in South Africa, a wind farm in Jamaica and a project in South Korea, who say their projects are designed to cut back the emissions of greenhouse gases such as carbon dioxide. Michaelowa explained that landfills play an important role in the context of climate change. "Landfill gas consists mainly of methane and methane is a gas that has a 21 times higher warming potential than CO₂, so even smaller projects can generate a lot emission credits. Then we have several types of renewable energy, mainly biomass-based energy such as rice husks in Thailand or gas in Brazil which comes from sugarcane production."

RUSSIAN RATIFICATION A MAJOR STEP FORWARD FOR KYOTO PROTOCOL

Despite the apparent lack of results at the conference, the mood was encouraging and there were hopes that the Kyoto Protocol, which seeks to reduce greenhouse gas emissions below 1990s levels by 2012, will take effect if Russia ratifies it too, as it has pledged. Steven Guilbeault, climate campaigner with the environmental organization Greenpeace, told Deutsche Welle this is likely to happen soon. "We've received numerous signals from the highest levels of the Russian government and various European governments. Various European governments have claimed they have received similar signals - in terms of it, it is no longer the question of will Russia ratify the Kyoto protocol, but rather of when will Russia ratify the Kyoto Protocol."

Should the Russian Duma ratify by September 13, the Kyoto Agreement would come into force by the forthcoming Milan climate summit in December. The Milan summit, the ninth such event, will focus on the issue of so-called carbon sinks. Trees absorb CO₂ and developed countries may earn credits for planting forests which they could offset against their emission cutting targets. It will also seek to enhance observation of the effects of climate change, particularly in the developing world, and aim to push climate change policies higher up governments' agendas.

9) RUSSIA MUST END UNCERTAINTY OVER KYOTO - UN

Planet Ark

June 12, 2003

Internet: <http://www.planetark.org/dailynewsstory.cfm/newsid/21153/story.htm>

BONN, Germany - Russia should end the uncertainty over whether it will ratify the Kyoto Protocol and finally say when it plans to accept the international agreement to limit greenhouse gas emissions, a U.N. official said. Most industrial nations, with the notable exception of the United States, the world's biggest polluter, have ratified the 1997 protocol which seeks to reduce richer nations' emissions of gases blamed for global warming. But the targets to bring such emissions below 1990 levels by 2012 will only take effect if Russia signs up.

Joke Waller-Hunter, executive secretary of the United Nations' Climate Change Convention, told Reuters she remained confident Russia would ratify, saying a climate conference in Moscow in September could be pivotal. "It provides an excellent opportunity for the Russian federation to give the clear indication that the international community needs, not on the if but on the when," she said on the sidelines of a climate conference in Germany. A breakthrough by September 13 would mean the Kyoto Protocol would take effect by the forthcoming Milan summit in December. It comes into force when countries accounting for 55 percent of emissions have signed up. Russian ratification would push the figure to about 60 percent of carbon dioxide (CO₂) and other greenhouse gases.

The Milan summit, the ninth such event, will focus on the issue of carbon sinks, Waller-Hunter said. Trees absorb CO₂ and developed countries may earn credits for planting forests which they could offset against

their emission cutting targets. It will also seek to enhance observation of the effects of climate change, particularly in the developing world, and aim to push climate change policies higher up governments' agendas. A U.N. report released last week showed that emissions in the industrialised countries were set to increase by 10 percent from 2000 to 2010 after a three percent fall in the 1990s. "The picture is not so rosy," Waller-Hunter said, adding that the transport and energy sectors had made little or no inroads into their gas emissions.

10) UN: CLIMATE CONFERENCE LOOKING TO RUSSIA TO RATIFY KYOTO PROTOCOL

Radio Free Europe

June 12, 2003

Internet: <http://www.rferl.org/nca/features/2003/06/12062003145709.asp>

Prague, 12 June 2003 (RFE/RL) -- A heat wave in India kills almost 1,500 people as monsoon rains come later than usual. Tornadoes wreck dozens of homes in Germany and Romania, where people used to watch such storms only on TV. The Danube, Europe's second-largest river, is at its lowest levels in many decades, while on some parts of the continent, people are still reeling after being hit by the hottest temperatures ever recorded in late spring. Some experts say such extreme weather indicates the climate is changing, mostly due to pollution and the increasing quantity of so-called "greenhouse gases" in the atmosphere. Others argue that such weather fluctuations are normal. But all scientists agree that greenhouse-gas emissions are dangerous and must be reduced.

However, experts from more than 150 countries attending a 10-day conference in Bonn are learning from a new report that industrialized nations are likely to increase their emissions by as much as 17 percent until 2010. This despite pledges under the 1997 Kyoto Protocol to reduce emissions by more than 5 percent by 2012. The Bonn conference is organized by the UN Framework Convention on Climate Change (UNFCCC). Vitalii Matsarski, one of the officials who supervised the UN report, told RFE/RL: "According to information that was provided to us in the [developed] countries' national communications...on what they do in climate change, it seems that unless some additional measures will be taken, emissions of developed countries might increase up to the year 2010."

Most developed countries have ratified the 1997 Kyoto Protocol, which aims to reduce emissions of greenhouse gases below 1990 levels by 2012. Such gases, mainly carbon dioxide, are largely blamed for global warming. But the Kyoto Protocol can only take effect if at least 55 countries, which account in total for at least 55 percent of 1990 levels of carbon-dioxide emissions, ratify the treaty. So far, some 109 countries have ratified the document, with the notable exceptions of the United States, the world's biggest polluter, and Russia. The U.S. legally withdrew its signature from the protocol, saying it would harm the country's economy. Therefore, the Bonn conference, which ends tomorrow, has been dominated behind the scenes by negotiations to convince Russia to ratify, which would push the total percentage of the ratifying countries' carbon-dioxide emissions to about 60 percent, meaning the protocol could finally take effect. Christoph Bals of the German environmental NGO Germanwatch noted that if Russia were to sign by September, the Kyoto Protocol would take effect in time for a climate summit in Milan in December. "It would be a totally different summit if Russia would ratify [the Kyoto Protocol] in time, and then the Kyoto Protocol would be already in force before the summit, or whether the Kyoto Protocol is still not yet in force and we still have to wait then on the Russian ratification. So the big issue here for this conference, behind the scenes, is whether Russia will ratify or not," Bals said.

In an interview yesterday with Reuters, Joke Waller-Hunter, the executive secretary of UNFCCC, urged Russia to end the ambiguity and say if and when it plans to ratify the protocol. But the UNFCCC's Vitalii Matsarski told RFE/RL the Russian delegation has given no clear indication about Moscow's intentions. "Without Russian ratification, the [Kyoto] Protocol cannot enter into force because the United States already declared they will not ratify the protocol. So now, unless Russia ratifies the protocol, it will not enter into force. The Russian delegation here at this session made a statement indicating Russia is seriously considering this issue, that there are several groups looking at the economic consequences of the ratification

of the protocol by Russia, and they expect they will come with a sort of a clear answer soon. But, for the moment, there is no announcement about when and how that will happen," Matsarski said.

If the Kyoto Protocol does take effect, it will allow for countries to trade emission quotas set by the UN -- meaning that a country whose emissions are larger than its quota could trade rights with other countries, provided it helps those countries invest in environmental protection measures. Bals, whose Germanwatch organization has been involved in promoting environmental measures in Central and Eastern Europe, said the protocol could greatly help these countries continue the clean-up of their air.

Bals told RFE/RL that substantial progress has been made in the region toward reducing greenhouse gas emissions. "And also in Eastern Europe, we have seen significant reductions in greenhouse-gasses emissions. In the Czech Republic between 1990 and 2000, about 20 percent. In other Eastern European countries between 30 [percent] and 70 percent. Letland [Latvia] is 70 percent. In Russia [it] is 40 percent. In Bulgaria and other countries, it's about 50 percent. But the times when climate protection was just [beginning to] happen because of the restructuring of the economy are now over. Now the time has to begin when real climate-protection measures have to be introduced," Bals said.

The UN's Matsarski agreed that a lot depends on the Kyoto Protocol taking effect. "These schemes of emission trading are still at a planning stage, although in some countries -- in the United Kingdom, for example -- there are already some trades going on. But all that is in anticipation of the entry into force of the Kyoto Protocol. As far as Central and Eastern Europe is concerned, they also expect that with the entry into force of the protocol, eventually they will probably have some excessive emissions that they could sell. But for that, as I said, the first requirement is that the protocol should enter into force," Matsarski said. The UNFCCC's Waller-Hunter said she remains confident that Russia will ratify the Kyoto Protocol. Waller-Hunter told Reuters that a conference on the climate scheduled for September in Moscow would provide what she called an "excellent opportunity" for Russia to do so.

CLIMATE CHANGE IMPACTS

11) AUSTRALIA'S GREAT BARRIER REEF HIT BADLY BY POLLUTION, REPORT FINDS

AFP

July 4, 2003

Internet: <http://www.terraily.com/2003/030704061019.k2j0ccmx.html>

The health of Australia's world-renowned Great Barrier Reef is continuing to suffer from pollution, over-fishing and rising sea temperatures, an official report said Friday. The Great Barrier Reef Marine Park Authority report on the status of the reef said turtle and dugong (a marine mammal) populations had dropped dramatically, the worst ever coral bleaching episodes occurred in the past five years and fishing was increasing. "We are seeing continuing decline in the state of the reef," said Environment Minister David Kemp, adding that the report made sobering reading.

The report, unveiled at a conference here Friday, found the annual flow of land-based pollutants has increased fourfold since European settlement. Nesting loggerhead turtles had declined by 50-80 percent in 40 years and dugong numbers were three percent of what they were in the early 1960s. Recreational fishing was increasing and the reef line fishery has doubled since 1995. The reef had suffered its two worst ever recorded coral bleaching events in the past five years, possibly due to global warming, the report said.

Kemp said the government was taking action, such as its push to increase areas of the reef closed to fishing from five to more than 30 percent. "The great positive is that the Great Barrier Reef is not only the world's largest coral reef but it's probably also the world's healthiest large reef," he said. "It is the responsibility of this community that where there is good scientific evidence of this decline, we act to put the reef on a healthy basis in future."

But opposition Labor environment spokesman Kelvin Thomson said the government needed to ratify the Kyoto Protocol on global warming and act urgently to implement pollution targets. "It needs to set targets to control sediments, control phosphorous, control nitrogen," he said. "It needs to ratify the Kyoto protocol on climate change, it needs to protect the reef from threats posed by shipping." Dugong expert Helene Marsh said the animal, which is believed to have inspired the mermaid myth, was falling victim to shark nets, boats and high levels of indigenous hunting. In the Torres Strait, about 1,000 dugong were hunted each year but the region's population could only sustain the loss of 154 at most, she said.

Marsh called for go-slow zones for boats, more regulation of hunting and more resources for indigenous communities to police regulations. Acclaimed US marine biologist Sylvia Earle warned only National Park-style no-take areas on the world's reefs could protect wild fish stocks. "If you keep going the way we are now, there is little hope there will be a commercial fishing industry in the future," she said.

12) ACCORDING TO THE WORLD METEOROLOGICAL ORGANIZATION, EXTREME WEATHER EVENTS MIGHT INCREASE

WMO

July, 2, 2003

Internet: <http://www.wmo.ch/web/Press/Press695.doc>

Geneva, 2 July 2003 - Record extremes in weather and climate events continue to occur around the world. Recent scientific assessments indicate that, as the global temperatures continue to warm due to climate change, the number and intensity of extreme events might increase, the World Meteorological Organization (WMO) states in a press release issued today.

In June, record high temperatures were recorded across southern France, with maximum temperatures exceeding 40°C in parts of southwest France. This resulted in June average temperatures of 5 to 7°C above the long-term average. In Switzerland, the month of June was the hottest in at least the past 250 years, according to environmental historians. In Geneva, since 29 May, maximum daytime temperatures did not drop below 25°C, making June the hottest June on record for the city.

In the United States, there were 562 tornados during May, which resulted in 41 deaths. This established a record for the number of tornados in any month. The previous monthly record was 399 tornados in June 1992. In the eastern and southeastern part of the US, wet and cold conditions prevailed for well over a month. Weekly negative temperature anomalies of -2°C to -6°C were experienced in May while precipitation excesses, ranging from 50 mm to 350 mm over a period of more than 12 weeks starting in March 2003, have been recorded.

In India, this year's pre-monsoon heat wave brought peak temperatures of between 45°C and 49°C which correspond to weekly temperature departures from the normal of +2 to +5°C. At least 1400 people died in India due to the hot weather. In Sri Lanka, heavy rainfalls from Tropical Cyclone 01B exacerbated already wet conditions, resulting in flooding and landslides and killing at least 300 people. The infrastructure and economy of southwestern Sri Lanka was heavily damaged. A reduction of 20-30% is expected for the output of low-grown tea in the next three months.

These record extreme events (high temperatures, low temperatures and high rainfall amounts and droughts) all go into calculating the monthly and annual averages which, for temperatures, have been gradually increasing over the past 100 years. New record extreme events occur every year somewhere in the globe, but in recent years the number of such extremes have been increasing. According to recent climate change scientific assessment reports of the joint WMO/UNEP Intergovernmental Panel on Climate Change (IPCC), the global average surface temperature has increased since 1861. Over the 20th century the increase has been around 0.6°C. This value is about 0.15°C larger than that estimated by the previous reports.

Analyses of proxy data for the Northern Hemisphere indicate that the increase in temperature in the 20th century is likely to have been the largest in any century during the past 1000 years. It is also likely that, in the Northern Hemisphere, the 1990s were the warmest decade and 1998 the warmest year. While the trend towards warmer globally averaged surface temperatures has been uneven over the course of the last century, the trend for the period since 1976 is roughly three times that for the past 100 years as a whole. Global average land and sea surface temperatures in May 2003 were the second highest since records began in 1880. Considering land temperatures only, last May was the warmest on record.

The influence of El Niño and La Niña on these extreme events is in general undefined. The World Meteorological Organization (WMO) and its Members, the National Meteorological and Hydrological Services along with various research institutes, will continue to organize research and document the influence of El Niño and other large scale climate phenomena on climate extreme events.

13) HARVARD MEDICAL, SWISS RE TELL CONGRESS RISKS OF GLOBAL WARMING "ARE HERE ALREADY"

Insurance Journal

June 19, 2003

Internet: <http://www.insurancejournal.com/news/newswire/international/2003/06/19/29988.htm>

Experts from the Harvard Medical School and Swiss Re briefed members of Congress yesterday on what they see as the current effects of global warming, indicating that it's no longer "a hypothetical concern for future generations," but is causing problems tight now.

Dr. Paul R. Epstein, M.D., associate director, Center for Health and the Global Environment at Harvard Medical School and Christopher T. Walker, Swiss Re's managing director, Greenhouse Gas Risk Solutions, Financial Services Business Group, told U.S. House and Senate members that global warming already is a front-burner issue in the public health and financial sectors (particularly the insurance industry). They cited new "outbreaks" of health problems, including asthma and West Nile Virus, and a palpable danger of added insurance risks and costs as indicating that climate-change issues must be addressed now.

"Concerns about climate change are often mistakenly placed into the distant future," Epstein explained. "But as the rate of climate change increases, so do the biological responses and costs associated with warming and unstable weather. The influence of intensifying droughts on the spread of West Nile virus in the U.S. and the impacts of rising carbon dioxide (CO₂) levels on allergies and asthma demonstrate that global warming has come into our backyards." He also noted that "The intense weather extremes associated with warming of the atmosphere and oceans create conditions favorable to 'clusters' of disease outbreaks. Large outbreaks of West Nile virus (WNV) in the U.S. and Europe are associated with drought, and prolonged droughts have become more frequent with global warming. WNV affects humans directly and the impacts on wildlife have long term implications for the global emergence and resurgence of infectious diseases."

Walker pointed out the looming financial consequences of global warming. "Today, climate change as a financial issue is very much underestimated from the point of view of the insurance and reinsurance industry's potentially rising costs and risks," he stated. "Carbon is becoming a tradable commodity, allowing companies to hedge their risks, profit from emissions assets and turn this new discipline into a competitive advantage." Walker added: "So, in addition to potential liabilities for corporations from greenhouse gas emissions reductions, there also are business opportunities where the financial industry and, in particular, the insurance industry can be the prime mover of emissions reduction activities.

The reality here is simple: insurance and reinsurance companies have the potential to become prime catalysts for the development of renewables, emission reduction and energy-efficient technologies for two reasons: such steps will reduce risks and open up new and lucrative lines of business activity.

14) CLIMATE CHANGE PLACES DEVELOPMENT TARGETS AT RISK

World Bank

June 9, 2003

Internet: <http://web.worldbank.org/WBSITE/EXTERNAL/NEWS/0,,contentMDK:20114895~menuPK:34463~pagePK:34370~piPK:34424~theSitePK:4607,00.html>

BONN, June 9, 2003—Development efforts in achieving the Millennium Development Goals (MDG's) to reduce poverty by 50 percent by 2015, and to sustain progress beyond, are at risk because of the adverse impacts of climate change on the livelihoods of poor people in developing countries, especially because of the changes in the availability of natural resources, according to a report released today by the World Bank and nine other bilateral and multilateral development-oriented institutions, during the meetings of the United Nations Framework Convention on Climate Change (UNFCCC). The report emphasizes that "Adaptation needs to go hand-in-hand with mitigation of climate change by limiting greenhouse gases in the atmosphere." It also urges industrialized countries to "take the lead in combating climate change and its adverse effects.

"Adaptation to climate change is an increasingly significant factor for future growth strategies – responsible investments must take climate risks into account to lead to poverty eradication and sustainable development," said Kristalina Georgieva, Director of the World Bank's Environment Department, while presenting the new report, *Poverty and Climate Change: Reducing the Vulnerability of the Poor through Adaptation*.

The report is the first joint statement of development agencies on the serious risks of climate variability and climate change for development, and on options to address them. The United Nations Development Program's (UNDP) Alvaro Umana, and Hans-Peter Schipulle, representing the German Ministry of Economic Cooperation and Development, joined Georgieva at a launch ceremony chaired by Joke Waller-Hunter, the Executive Secretary of the UNFCCC.

It also calls upon the international community to ensure "that climate issues are fully integrated in development assistance". The ten organizations that carried out the study agreed to "support this commitment in our own institutions". This would be primarily achieved by reorienting development assistance through the integration of climate concerns in the design of water, forestry, agriculture and infrastructure projects supported by the agencies. In addition, the Global Environment Facility (GEF) – jointly managed by the World Bank, UNDP and the United Nations Environment Program (UNEP) - will be instrumental in implementing adaptive strategies. "While the impacts of climate change differ from one geographical location to another in magnitude and nature, it is the poor in developing countries which will suffer a disproportionately large burden of the negative consequences" according to the study.

The report stresses that climate change would compound existing vulnerabilities to development. "Climate change will further reduce access to drinking water, and negatively affect the health and food security of poor people in many countries of Africa, Asia and Latin America." It underlines that "unless remedial measures are taken, the livelihoods of poor people and the development prospects of many developing countries are threatened."

When discussing the measures that can be taken by communities, governments, and global agencies in enhancing the resilience of livelihoods, infrastructure, and economic sectors to climatic impacts, the study suggest that "responsive institutions which can adapt their operating processes to address the changing impacts of climate on the poor" are key for moving forward a sustainable and responsible path of development.

On the other hand, "progress in sustainable development would also enhance resilience, mainly by reducing unsustainable practices such as the fracture of groundwater reservoirs because of excessive pumping," said Ajay Mathur, Team Leader of the Bank's Climate Change Team, who coordinated the preparation of the ten-agency report.

The report illustrates that governmental and institutional strategies need to be combined with bottom-up approaches rooted in regional, national, and local knowledge. Access to high-quality climate information in developing countries can help empower communities to adopt locally-relevant adaptation; it can also enable governments to plan and budget for the social and economic impacts of climate variability and change. "The incorporation of climate-risk management in macroeconomic planning and national budgets can help rationalize public resource allocations so as to minimize the adverse impacts of climate change" according to the study.

The nine agencies who collaborated with the World Bank in the preparation of this report are the African Development Bank (AfDB), the Asian Development Bank (ADB), the Ministry of Economic Cooperation and Development of Germany (BMZ), the Department for International Development of the United Kingdom (DFID), the Directorate General for Development Cooperation of the Netherlands (DGIS), the Directorate General for Development of the European Union (DG-DEV/EU), the Organization for Economic Cooperation and Development (OECD), the United Nations Development Program (UNDP), and the United Nations Environment Program (UNEP).

For more information on the World Bank and environment, visit:
<http://lnweb18.worldbank.org/ESSD/essdext.nsf/41ByDocName/Environment>

GREENHOUSE GAS EMISSIONS

15) U.S. CO2 EMISSIONS ROSE 1.3 PERCENT IN 2002 -- EIA

Reuters

June 27, 2003

Internet: <http://www.alertnet.org/thenews/newsdesk/N27345146.htm>

WASHINGTON, June 27 (Reuters) - U.S. emissions of heat-trapping carbon dioxide from fossil fuels rose by 1.3 percent in 2002, reversing a similar decline the previous year, the Energy Department's statistical arm said on Friday. Carbon dioxide emissions spewed by sources like power plants, factories and cars increased to 5,762 metric tons in 2002 versus 5,686 metric tons in 2001, the Energy Information Administration said in a preliminary estimate. By contrast, emissions fell by 1.4 percent in 2001. Emissions of the greenhouse gas from the U.S. energy sector, which scientists have linked to global warming, have grown by 16 percent from 1990 to 2002, the EIA said.

But using the Bush administration's preferred method of measuring emissions against U.S. gross domestic product (GDP), carbon dioxide "intensity" fell 17.6 percent over the same period. The administration has rejected mandatory limits in favor of a plan to reduce U.S. emission intensity by 18 percent over 10 years through voluntary industry measures. Environmental groups have criticized the plan, pointing out that overall emissions would increase faster than under status-quo measures. "The White House's global warming plan would allow more pollution to occur at an even faster rate," said Jeremy Symons, a climate change expert at the National Wildlife Federation. The administration defended its plan as a way to slow carbon dioxide emissions while encouraging U.S. economic growth.

Dana Perino, a spokeswoman for the White House Council on Environmental Quality, said that EIA's numbers show that carbon dioxide emissions expanded at half the rate seen by the U.S. economy, which grew by 2.4 percent in 2002. "That's something to be celebrated," Perino said. The administration's plan to build next-generation coal-burning power plants that pump their carbon dioxide emissions into massive underground storage reservoirs will also reduce greenhouse gas growth, she said. Republican Sen. John McCain of Arizona and Democratic Sen. Joseph Lieberman of Connecticut want to amend an energy bill before the Senate to establish an emissions cap, but McCain has conceded that the plan has little hope of passage. The measure, which the Senate could take up in late July, would be the first time the body has voted on mandatory carbon dioxide reductions.

16) EUROPE MUST REDUCE ENERGY CONSUMPTION BY 1% ANNUALLY

WWF

June 25, 2003

Internet: http://panda.org/news_facts/newsroom/other_news/news.cfm?uNewsID=7623

Brussels, Belgium – WWF calls on the EU to reduce energy consumption by 1 per cent every year in order to combat climate change effectively, as part of its PowerSwitch! initiative. Without substantial energy savings, the EU risks failing to achieve even its modest Kyoto climate targets of reducing its carbon pollution by 8 per cent by 2012. EU energy consumption has increased around 10 per cent since 1990. Electricity generation in the EU has been growing even faster, by about 26 per cent since 1990. With 10 countries joining the EU in the very near future, this trend is likely to worsen — and threatens to undermine efforts to tackle climate change.

“There is no effective EU-wide policy to boost energy conservation,” said Stephan Singer, Head of WWF’s European Climate and Energy Policy Unit. “Energy conservation is perhaps the most widely overlooked policy in the EU. WWF proposes a binding EU target to reduce energy consumption by at least 1 per cent per year for the foreseeable future. This would help reduce Europe’s dependency on fuel imports as well as limit climate change.”

WWF believes a 1 per cent target can be achieved easily and at low cost by supporting existing super-efficient products through EU Directives and other policies. WWF proposes:

- legally binding product standards — including drastic reduction of ‘stand-by’ losses of electrical appliances, which consume up to 13 per cent of all household electricity use in Europe
- mandatory efficiency standards for all electric appliances in households, offices, and industry
- improved efficiency labelling schemes
- public procurement schemes for local authorities to support the most efficient and clean products.

All these policies are needed to frame the upcoming liberalized power market in an environmentally sustainable way. Apart from the industrial and power consumption sector, transport and heating provide additional opportunities for massive energy savings and contribute to the target of a 1 per cent cut of energy consumption per year. An ambitious EU energy conservation programme is also needed to take the EU beyond the existing Kyoto targets. WWF believes that in the longer term, Europe should look towards a cut of about 50 per cent carbon pollution from the power sector by 2020. WWF is addressing this issue in its WWF’s PowerSwitch! initiative, aimed at power producers and consumers.

17) RICH COUNTRIES' GREENHOUSE GAS EMISSIONS BALLOONING

ENS

June 9, 2003

Internet: <http://ens-news.com/ens/jun2003/2003-06-09-02.asp>

BONN, Germany, June 9, 2003 (ENS) - The emissions of carbon dioxide and other greenhouse gases from Europe, Japan, the United States and other industrialized countries could grow by 17 percent from 2000 to 2010, despite measures in place to curb them, according to a new United Nations report. Greenhouse gases blanket the Earth, trapping the Sun's heat close to the planet's surface. Based on projections provided by the governments themselves, the report is under consideration at a two week meeting of the UN Climate Change Convention’s 190 member governments that opened at the Maritim Hotel in Bonn Wednesday. It is intended to help governments plan their future climate change strategies. “These findings clearly demonstrate that stronger and more creative policies will be needed for accelerating the spread of climate friendly technologies and persuading businesses, local governments and citizens to cut their greenhouse gas emissions,” said Joke Waller Hunter, executive secretary of the UN Climate Change Convention.

Emissions rose in all major economic sectors, including energy, transport, industry and agriculture. The exception was waste management, where emissions declined slightly. The figures do not include emissions and removals from land use change and forestry. Governments adopted a more comprehensive set of policies and measures during 2000 and 2001 for addressing their emissions such as emissions trading, carbon taxes and green certificate trading. The greatest number of policies and measures are being put to use in the energy sector. The value of this report, an official UN document entitled "Compilation and Synthesis of Third National Communications," has been improved by the growing quantity, quality and timeliness of the underlying national reports, called national communications, the Climate Change Convention Secretariat says. Thirty-one third national communications from developed countries have been submitted along with 100 initial national communications from developing countries.

The emissions of Central and Eastern European countries are starting to increase as their economies recover from early and mid-1990s lows, says the report based on projections provided by these governments. Developed countries saw their combined emissions fall during the 1990s, by three percent, due to a 37 percent decline in the emissions of Central and Eastern European countries. Most of the reductions in the emissions from developed countries was due to the steep economic decline in the countries of eastern Europe and the former USSR, resulting from the transition from centrally planned to market economies and associated structural changes, the secretariat says. In recent years most of these countries have experienced appreciable economic growth which is projected to lead to increased emissions in the future.

Greenhouse gas emissions in the highly industrialized countries as a whole rose by eight percent from 1990 to 2000. According to the report, the European Union's total emissions decreased by 3.5 percent from 1990 to 2000, with individual member states varying between a decrease of 19 percent and an increase of 35 percent. Emissions increased in most other highly industrialized countries - five percent in New Zealand, 11 percent in Japan, 14 percent in the United States, 18 percent in Australia, and 20 percent in Canada. With very few exceptions, the secretariat says, the reporting governments underlined the importance of the 1997 Kyoto Protocol in shaping their domestic climate policy responses. They said their emissions reduction targets under the protocol are a first step towards long term and continued emission reductions.

This international treaty under the UN Climate Change Convention requires 37 industrialized countries to reduce their emission of six greenhouse gases an average of 5.2 percent of 1990 emissions during the five year period 2008-2012. The protocol broke new ground with three innovative mechanisms - joint implementation, the clean development mechanism (CDM) and emissions trading. These aim to maximize the cost effectiveness of climate change mitigation by allowing parties to the protocol to pursue opportunities to cut emissions, or enhance carbon sinks, more cheaply abroad than at home. The cost of curbing emissions varies considerably from region to region as a result of such differences as energy sources, energy efficiency and waste management. The parties may maximize the effectiveness of their funding for climate change mitigation by cutting emissions, or increasing removals, where it is cheapest to do so, given that the impact on the atmosphere is the same.

The Executive Board of the Kyoto Protocol's Clean Development Mechanism (CDM) met over the weekend, and for the first time, considered methodologies needed for evaluating and monitoring CDM projects. If such methodologies are approved, the first CDM projects could be registered during the third quarter of 2003. At a side event on poverty and climate change Waller-Hunter introduced a report entitled, "Poverty and climate change: Reducing the vulnerability of the poor through adaptation." World Bank representative Kristalina Georgieva said the report offers adaptation measures that will assist developing countries to deal with the impacts of climate change and reduce their vulnerability. Although the United States will not ratify the Kyoto Protocol under President George W. Bush, U.S. Agriculture Secretary Ann Veneman Friday announced that for the first time, the U.S. Department of Agriculture will give consideration to management practices that store carbon dioxide and reduce greenhouse gases in implementing forest and agriculture conservation programs. "Farmers, ranchers and forestland owners can play a unique role in reducing the greenhouse gas intensity of the U.S. economy," Veneman said. Generally, the UN report concludes, climate change has increased in importance in the national policy agendas of countries that are Parties to the Convention. Linkages were established in a number of national communications between climate change issues, such as energy and mobility, and sustainable development.

See Also:

Rich countries see higher GHG gas emissions, UNFCCC Secretariat, June 3, 2002;
Internet: <http://unfccc.int/press/prel2003/pressrel030603.pdf>

18) SWISS TOLD TO DO MORE TO REDUCE CO2

swissinfo

July 5, 2003

Internet: <http://nzz.ch/2003/07/05/english/page-synd4006002.html>

A new report says Switzerland needs to take tougher action to reduce carbon dioxide emissions by the required ten per cent by 2010. It warns that unless government energy and transport policy changes, levels will drop by only 1.3 per cent over the next eight years. The report, entitled "Potential for the reduction of CO2 emissions in Switzerland from now until 2010", was published on Friday by the Swiss Federal Institute of Technology in Zurich. Eberhard Jochem, author of the report, says the current rate of progress is cause for concern. "During the last ten years CO2 levels have more or less stagnated at the same level as 1990," he told swissinfo. "This means that quite a bit of time has passed without success."

The report suggests more renewable energy sources, such as natural gas and wood, should be used in place of petrol, diesel and heating oil. Another solution, it adds, would be to introduce from 2005 a tax of SFr50 (\$37) per ton of CO2 emitted by fossil fuels, and SFr100 per ton for petrol and diesel. The report calls for greater cooperation between the private and public sectors to bring CO2 levels down. But Jochem says the main onus is on the government to introduce more rigorous measures. "The question now is what other policies and instruments will the Swiss government take up. There are still possibilities for the government."

GOVERNMENT ACTION

The requirement to reduce CO2 emissions by 2010 is enshrined in Swiss law. Emission levels must drop by four million tons by 2010, corresponding to a 15 per cent drop from 1990. But, according to researchers, emissions barely dropped by one million tons over the period 1990 to 2001. They warn that at this rate Switzerland has no chance of meeting its target. The study insists that taking the necessary steps to meet the 2010 target would not impose big demands on the economy. The extra money spent on developing renewable energy sources would be made up by making the air cleaner. The drop in medical bills would be the most noticeable cost reduction, says the report. It also claims that new jobs would be created as a result of bringing in "cleaner" fuel. In response to the report, the Swiss Environment Agency admitted it had its work cut out. "We agree completely with the study," said Paul Filliger, a scientist working for the agency. "If there are no additional measures the target of the CO2 law or the targets set out in the Kyoto protocol will not be met by Switzerland."

SWISS INITIATIVES

Filliger added that the agency was in the process of implementing a range of new measures designed to accelerate the decrease in emissions. The measures voluntary agreement with car importers. If these agreements fail to reduce emissions sufficiently, he said, then a CO2 tax, similar to the one suggested in the report, although no charges have been decided upon. The Federal Council is due to make a decision on whether to introduce the tax at the beginning of 2004. If it also gets the go-ahead from parliament, Filliger added, the system could be introduced as early as 2005. Switzerland has already introduced a number of initiatives in an effort to clean up its air.

Since January, all new car imports must be given a label indicating its fuel consumption. The move is aimed at encouraging Swiss consumers to avoid cars that guzzle fuel. More recently, at the beginning of June, the Swiss parliament ratified the Kyoto Protocols, which commits signatory countries to cutting their CO2

emissions to pre-1990 levels. The report was written in conjunction with the Centre for Energy Policy and Economics and was financed by the Swiss Association for the Gas Industry.

19) GREENHOUSE GAS EMISSIONS FROM NEW ZEALAND STILL GROWING

New Zealand Herald

July 3, 2003

Internet: <http://www.nzherald.co.nz/storydisplay.cfm?storyID=3510738&thesection=news&thesubsection=general>

Greenhouse gas emissions from New Zealand's energy sector continue to grow, according to the latest available statistics. The report New Zealand Energy Greenhouse Gas Emissions 1990-2002, released today, shows that the energy sector's gross carbon dioxide emissions grew by 2.7 per cent from 2001 to 2002. Average annual growth since 1990 was 2.4 per cent. Under the Kyoto Protocol, New Zealand is obliged to reduce its emissions of greenhouse gases to 1990 levels, on average, over 2008-2012, or take responsibility for emissions above that level.

Of the energy sector's carbon dioxide emissions, 45 per cent came from domestic transport, 21 per cent from industry and 18 per cent from thermal electricity generation. Carbon dioxide emissions from domestic transport grew by 10 per cent from 2001-2002, reflecting higher petrol and diesel consumption. The average increase since 1990 was 3.9 per cent a year. International comparisons in the report show that among 23 OECD countries New Zealand's per capita emissions were relatively low, but it had the second highest percentage increase in carbon dioxide emissions from 1990-2000.

"New Zealand needs to break the link between economic growth and escalating fossil fuel use," said the Convenor of the Ministerial Group on Climate Change, Pete Hodgson. "That is why we have the National Energy Efficiency and Conservation Strategy, energy policy initiatives to encourage renewables, climate change policies to provide incentives for emission reduction and a commitment under the Transport Strategy to improve the efficiency of road and rail networks, promote alternatives to roads and reduce traffic growth."

POLICIES & PROGRAMMES

20) BUSH GLOBAL WARMING PLAN WILL ALLOW MORE POLLUTION

Eddie weekly summaries

July 4, 2003

Internet: http://www.edie.net/gf.cfm?L=left_frame.html&R=http://www.edie.net/news/Archive/7209.cfm

President Bush's global warming plans will allow more greenhouse gas pollution to occur at a faster rate than if the nation maintained the pollution trends of the past five years, a new study has found. Analysis by the National Wildlife Federation, of data released by the US Department of Energy (DoE), shows that over the last five years carbon dioxide emissions have gone up by 4.9% despite Bush saying he wanted to, "set America on a path to slow the growth of our greenhouse gas emissions." This increase is set to continue to 10% over the next ten years, if current trends continue.

The report says the problem is that the administrations greenhouse goals are stated in terms of emissions intensity – measured as the amount of greenhouse gases emitted per dollar of economic output – and not in terms of actual emissions levels. "This 'intensity' goal actually hides an increase that is likely to be larger and faster than that experienced in the past five years," the report says. The pollution increases we have seen for the past five years are bad enough for the environment, but the White House's global warming plan would allow more pollution to occur at an even faster rate," said Jeremy Symons, climate change and wildlife manager for the National Wildlife Federation.

President Bush's energy priorities such as promoting more coal fired power plants to increase the dependency on fossil fuels will also accelerate the build-up of greenhouse gases in the atmosphere. The report calls for mandatory policies and clear emission limits to control nations runaway pollution levels rather than 'intensity' targets and voluntary agreements. The National Wildlife Federation released its first edition of the report, *Beneath the Hot Air*, last July to document the rise in emissions, before President Bush began pursuing voluntary agreements with industry, but has been republished to highlight the problems of current policy. The report comes in the same week that it was revealed that the Environmental Protection Agency (EPA) withheld key findings of its analysis of Bush's Clear Skies initiative for power plant emissions.

The Clear Skies initiative is designed to reduce emissions from power plants over the next twenty years, yet does not address carbon dioxide – largely considered one of the most important greenhouse gases.

The EPA found that a separate senate plan to combat air pollution would be more effective in reducing harmful pollutants, if marginally more expensive. Crucially, the senate proposal has a carbon dioxide reduction plan that can be carried out at 'negligible' cost to industry. Environmentalists have described the Clear Skies bill as a dilution of current EPA air pollution requirements and criticised the EPA for not releasing their full results.

21) WWF LAUNCHES "CLIMATE BANK" TO REDUCE GREENHOUSE GASES

AGI

July 3

Internet: <http://www.agi.it/english/news.pl?doc=200307031528-0092-RT1-CRO-0-NF11&page=0&id=agionline-eng.oggitalia>

Greenhouse gases are the nightmare of our present and our future. The more of them you produce, through a thoughtless or unintelligent use of resources, even just using the washing machine, and the more you are putting the planet at risk. And the heatwave of these last few days, with temperatures that range far above the seasonal and historic averages, are just a sample of what is to come. And so we must work out how to deal with the situation now. For example learning how to adopt the sort of behaviour that helps to reduce greenhouse gas emissions.

This is how the 'Climate Bank' project is born, created by the WWF and the Cittadinanzattiva association. A virtual 'bank' where each one of us, every family, will be able to work out what their 'weight' is in energy terms and the impact they have on the climate every time they heat or use air-conditioning in the house, when they use household appliances, when you travel to reach a destination, when you use various consumer goods. And if people so desire there is also a booklet ready called 'The Book of Savings' of energy that will allow people to earn virtual points measured in 'climate-kilos'. (AGI)

22) EPA UNVEILS NEW ANALYSIS OF CLEAR SKIES PROPOSAL

ENS

July 2, 2003

Internet: <http://ens-news.com/ens/jul2003/2003-07-02-11.asp>

WASHINGTON, DC, July 2, 2003 (ENS) - The Bush administration struck back at critics of its plan to reduce air pollution Tuesday, releasing new analysis of the "Clear Skies" program that shows higher health benefits than previously estimated. But environmentalists say the new analysis is fundamentally flawed and reflects the administration's concern that opposition is building to its proposal. "The administration is desperate to salvage a failing product," said Frank O'Donnell, executive director of the Clean Air Trust. "This new analysis is nothing more than a political statement."

According to the administration, Clear Skies will reduce emissions of sulfur dioxide (SO₂), nitrogen oxides (NO_x) and mercury by some 70 percent by 2018, and will achieve these benefits more efficiently than existing law. It does not call for reductions of carbon dioxide (CO₂) - industry groups and the Bush administration are loathe to support any mandatory cuts in CO₂, which most scientists believe is a leading contributor to global warming. The new analysis, released Tuesday by the U.S. Environmental Protection Agency (EPA), incorporates the most recent air quality data, census information, and modeling techniques. EPA said its improved figure includes benefits from planned state and federal measures and new assumptions about senior citizens, who face higher risk from air pollution. The analysis finds that Clear Skies' health benefits are higher than previously estimated and that the nation would come close to full attainment for the national fine particle standard based on the benefits of Clear Skies, the administration's proposed off-road diesel rule and additional existing requirements.

Current annual emissions of SO₂, a leading cause of acid rain and soot, are some 11 million tons. Some five million tons of NO_x, the leading contributor to smog, are emitted annually from power plants. Power plants emit some 48 tons of mercury each year. The plan's NO_x and SO₂ requirements affect all fossil fuel-fired electric generators greater than 25 megawatts, and mercury requirements affect only coal-fired electric generators greater than 25 megawatts. The analysis reaffirms that Clear Skies will reduce air pollution while "cost-effectively helping to ensure that we have a reliable, affordable supply of electricity along with cleaner air," said Jeffrey Holmstead, EPA's Assistant Administrator of the Office of Air and Radiation. The EPA estimates the annual cost of Clear Skies will be some \$6.3 billion, but it could achieve health benefits of some \$110 billion by 2020. Early analysis had shown benefits of \$93 billion by 2020. "Our updated modeling incorporates the best scientific and technical information available, and shows us how imperative it is for the Congress to enact Clear Skies this year," Holmstead said.

But the legislative future for Clear Skies is cloudy. Several senators, including Democratic presidential candidate Joe Lieberman of Connecticut, have vowed to contest any plan that does not include mandatory reductions of CO₂. A rival plan, proposed by Delaware Senator Tom Carper, a Democrat, appears to be gaining support - the bill includes limits on CO₂ and would reduce pollution of SO₂, NO_x and mercury more quickly and with greater health benefits than Clear Skies. By 2018, Clear Skies is projected to have reduced SO₂ emissions to three million tons, NO_x emissions to 1.7 million tons and mercury emissions to 15 tons. By contrast, the Carper bill is projected to reduce SO₂ emissions to 2.25 million tons by 2015, NO_x emissions to 1.7 million tons by 2012, and mercury emissions to 10 tons by 2013.

The EPA's analysis of Carper's bill finds it would achieve benefits of some \$140 billion by 2020 at an annual cost of \$8.7 billion. Environmentalists say it is a vast improvement over Clear Skies, but some find a few troubling provisions in the legislation. O'Donnell says the bill would roll back pollution standards for new power plants, weaken the New Source Review program and eliminate some of the current health protections for local communities from power plant emissions. State officials share these concerns, says Bill Becker, executive director of State Territorial Air Pollution Program Administrators and the Association of Local Air Pollution Control Officials.

Becker said that although the Clean Air Act has worked "wonderfully well" to reduce pollution, there is a need multi pollutant legislation to build on its success. "We could be doing a lot more than we are doing now," Becker said. "It is time that to move on and we think multi pollutant legislation will actually help industry by providing more certainty." "But if we had a choice between Clear Skies and nothing, we would take nothing," Becker said. Much of the power plant industry, however, is squarely behind Clear Skies. "Clear Skies is responsible public policy," said Jim Owen, spokesman for Edison Electric Institute, a lobbying group that represents some 70 percent of the publicly owned electricity generation companies in the United States.

The Clean Air Act has done much to clean up the air over the past three decades, Owen said, but has become overly bureaucratic and difficult to implement. The industry is keen on a multi-emissions approach, he added, that balances air pollution targets with the ability of power companies to continue producing cheap, reliable energy. "We have reached a regulatory and legal gridlock with overlapping and duplicitous rulemaking and regulations," Owen said. "Regulatory certainty is the goal and that is the exactly the opposite

of what you get under the Clean Air Act." Although environmentalists are quick to point out the industry's close ties to the Bush administration, Owen says there is nothing sinister or secret about his organization's support for the President's plan or its lobbying efforts to drum up support on Capitol Hill. "We are doing what every other group and industry does," Owen said.

But O'Donnell is convinced Clear Skies compromises public health and environmental protection, and said this latest analysis by the EPA shows that the administration is "comfortable doctoring information for political purposes." The analysis is done as if the Clean Air Act does not exist, O'Donnell said, and includes benefits from the proposed nonroad diesel rule that might never materialize. "The analysis shows differences between their plan and a false future," he said. If the administration was serious about reducing air pollution it would start by enforcing the Clean Air Act, O'Donnell added. Analysis of mandates in the Clean Air Act for reductions to SO₂, NO_x and mercury, indicate that those mandates would reduce pollution emissions more quickly than Clear Skies. Enforcing the Clean Air Act, according to EPA, would result in SO₂ emissions of two million tons annually by 2010, would reduce NO_x emissions to two million tons by 2012 and could mandate a 90 percent reduction in mercury emissions by 2007.

23) EP BREAKTHROUGH ON GREENHOUSE GAS EMISSIONS TRADING

EU Business

July 3, 2003

Internet: <http://www.eubusiness.com/cgi-bin/item.cgi?id=114048&d=101&h=240&f=56&dateformat=%25o%20%25B%20%25Y>

The European Parliament has voted in favour of a compromise package on emissions trading, giving the green light to a directive which will give carbon dioxide a market value across the EU from January 2005. Emissions trading sets limits on the emissions of carbon dioxide from energy intensive sectors. Companies reducing emissions to a level below their limit will be able to sell their over-achievement to companies that have exceeded their limit; or they can "bank" it for future use. Welcoming the vote, which will create the largest emissions trading scheme in the world, Environment Commissioner Margot Wallstrom said: "Companies across 25 countries must now start incorporating climate change into day-to-day commercial decisions, and begin assessing what innovative steps they can take to reduce emissions."

A company's strategy is likely to depend largely on the price at which emission reductions are traded. The European Commission believes that the EU scheme will not only allow emission reductions to take place at minimum cost to the economy, but that it will also bring climate change into the boardroom through giving carbon reductions a value. This will in turn promote innovation, "bringing new opportunities to companies within the European Union." It is estimated that about 46 per cent of the EU's total CO₂ emissions in 2010 will be brought under the scheme. While the Kyoto Protocol has been ratified by over 110 developed and developing countries across the world, this does not include the United States, which has withdrawn from the global framework for addressing climate change.

The final changes voted through in the compromise package today include:

- Method of allocating allowances: Auctioning has been extended to the first phase of the scheme. Member States now have the discretion to auction up to 5% of allowances in the first phase (2005-07), and up to 10% of allowances in the second phase of the scheme (2008-12). The remainder of the allowances will be allocated free-of-charge.
- Quantity of allowances allocated: Further safeguards protecting against the over-allocation of allowances have been added. Plus, the Directive now explicitly states that Member States must show that they are on a path to meeting their Kyoto Protocol obligations (2008-12) when proposing the quantity of allowances to be allocated to companies in the first phase (2005-07).
- Credits from the Kyoto Protocol project mechanisms (Joint Implementation and the Clean Development Mechanism): New text emphasises the importance of the Community undertaking domestic action to

achieve greenhouse gas emission reductions, alongside using credits resulting from emission reductions made outside the Community.

- Future extension of the scheme to other sectors: The Commission will assess the coverage of the scheme in 2004 and 2006 with a view to the possible inclusion of other sectors, for example, the chemical, aluminium and transport sectors.

The Council will now adopt the Directive without discussion at one of its next meetings, and it will enter into force as soon straight away. The Commission will also shortly put forward a new proposal to link the Kyoto Protocol project mechanisms to the EU emissions trading scheme. The proposal will provide details as to how project credits will enter into the EU market, the use of which will further lower the costs to companies with emission reduction obligations.

See Also:

CET Industry to trade gas emission rights, EU Observer, July 3, 2003;
Internet: <http://www.euobserver.com/index.phtml?aid=11959>

Europeans Take Lead in Carbon Emissions Trading, Says World Wildlife Fund, WWF, July 3, 2003;
Internet: <http://releases.usnewswire.com/GetRelease.asp?id=115-07022003>

EU parliament launches climate emissions trading, Planet Ark, July 3, 2003;
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E.U. parliament approves greenhouse gas trading system, Associated Press, July 3, 2003;
Internet: http://www.enn.com/news/2003-07-03/s_6158.asp

EU Reaches Climate Emissions Trading Breakthrough, ENS, June 25, 2003,
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EU Lawmakers Agree Climate Emissions Trading Scheme, Reuters, June 25, 2003,
Internet: http://story.news.yahoo.com/news?tmpl=story&cid=570&ncid=753&e=10&u=/nm/20030625/sc_nm/environment_eu_climate_dc

EU closer to climate emissions trading, CNN, June 25, 2003;
Internet: <http://www.cnn.com/2003/TECH/science/06/25/europe.climate.reut/>

24) EMISSION LABELS FOR NEW CARS

The Age
July 2, 2003
Internet: <http://www.theage.com.au/articles/2003/07/01/1056825393827.html>

New cars sold in Australia will have to carry stickers showing their carbon dioxide output from January, in an attempt to cut greenhouse gas emissions. Federal Environment Minister David Kemp and Transport Minister John Anderson announced the move yesterday, expanding the environmentally friendly label, which already shows fuel consumption. Dr Kemp said the stickers would enable car buyers to compare the emission levels of different models. "Cars with the lowest carbon dioxide emissions are better for the environment and car manufacturers are becoming increasingly aware of buyer interest in environmental performance of vehicles," he said. Scientists believe carbon dioxide traps heat in Earth's atmosphere, contributing to global warming. Dr Kemp said greenhouse gas emissions from the transport sector were growing faster than those of any other sector. All new model cars introduced between now and the end of the year will be required to carry the sticker, which is usually found on the passenger side of the windscreen. All new cars - including models already on the market - will have to carry the label from January 1.

25) GAS EMISSIONS ONLINE WITH LOGICACMG

iTnews

July 1, 2003

Internet: http://www.itnews.com.au/storycontent.cfm?ID=2&Art_ID=12303

Global integrator LogicaCMG has won a tender to build, maintain and operate a world-first online greenhouse gas emissions trading registry for the NSW Independent Pricing and Regulatory Tribunal (IPART). The deal--worth \$1 million over three years--covers design, development, deployment, operation and maintenance of a Web site that will enable IPART to keep track of NSW Government Greenhouse Gas Abatement Scheme certificates traded amongst electricity suppliers, generators and retailers from September.

Jim Cox, a full-time member of energy sector regulatory and pricing group IPART, said that from 1 January NSW electricity retailers and certain other energy sector players had been required to work towards abating greenhouse gas emissions from electricity generation, supply and use. Certificates issued to industry players who achieve set emissions targets could be traded to other energy sector parties, as needed. "It is in a way an emissions trading thing but it is restricted to electricity sellers and users in the NSW electricity industry," Cox said. "Governments around the world are starting to turn their minds to what we can do to reduce greenhouse gas emissions, and emissions trading seems to be one of the more attractive ways to go," he said.

The NSW government's scheme was so far one of the most stringent in the world in terms of permitted greenhouse gas emissions per capita, Cox said. He added that it also providing ways for the energy sector to counteract the expected negative effects on the local industry of emissions restraint. Hundreds of electricity sector organisations could eventually be signed on to the online registry, according to Cox. "And it is certainly innovative in that it is compulsory, so we will be learning about it as it goes on," he said. Cox said the deal was initially put out to tender in March, with IPART receiving around 12-15 responses. LogicaCMG's proposal stood out among "a number" of very good bids for its breadth and attention to features such as security at a "good" price. Also, LogicaCMG had convinced IPART it would be able to deliver the solution by September, he said.

Malcolm Risby, managing director of business solutions at LogicaCMG in Australia, said the IPART deal was an opportunity for the integrator to consolidate and expand both its energy industry involvement and government business deals in Australia. Some 60 percent of LogicaCMG's business in Australia is within the energy sector, although the company has not worked with IPART before. "IPART will be very significant strategically," Risby said. "We also feel that greenhouse gas emissions and so forth will eventually play an important part of the energy management strategy not just in Australia but around the world." IPART's approach to managing greenhouse gas emissions was at the forefront of activity in that market in Australia and internationally, he said, with a lot of other countries and states soon to follow. This would provide opportunity for LogicaCMG to gain expertise in an emerging area with genuine growth potential, he said.

Although large energy companies were not necessarily the largest spenders on IT in the corporate sector, they had a prominent role in Australia and were an important vertical to target. "The [energy industry] is certainly a substantial user of IT," Risby said. "And there will be more potential for them to integrate IT with their business processes and so on as there is much change in the energy market." NSW's Greenhouse Gas Abatement Scheme issues certificates to energy sector players capturing carbon from the atmosphere, for example by growing forests, generating electricity in ways that reduce greenhouse gas emissions per Megawatt-hour (MWh), or carrying out activities that cut electricity consumption or on-site emissions not directly related to electricity consumption. Those certificates can then be traded to parties that need to emit more greenhouse gases than targets permit. Mandatory targets for reducing greenhouse gas emissions have been set for all electricity retail suppliers, electricity generators supplying to retailers such as EnergyAustralia, and electricity customers which take their supply directly from the national electricity market.

26) GOING DUTCH ON CDM PROJECTS

Financial Express

June 30, 2003

Internet: http://www.financialexpress.com/fe_full_story.php?content_id=37124

Most of the workshops are forgettable. But the workshop on Clean Development Mechanism—An Emerging Opportunity for Indo-Dutch Co-operation, which was organised by Royal Netherlands Embassy in coordination with TERI in the capital last week, may be an exception.

The workshop aimed not only to promote and intensify the cooperation in operationalisation of Clean Development Mechanism (CDM) between the Government of Netherlands and the Government of India, but also invest a part of an estimated US\$ 45 million that the Dutch may have to spend for reducing 10 Mtonne of carbon dioxide through CDM by way of bilateral cooperation with countries by 2012, according to Lex de Jong, head of CDM Division, the Dutch ministry of housing, spatial planning & environment (VROM).

The emphasis was particularly on exploring the possibility of a bilateral agreement between Indian public sector undertakings and the VROM. Said Rita D Rahman, deputy head of mission, Royal Netherlands Embassy, “This workshop is a step in the right direction. It is for mutual gains—and also in the interest of the international community.”

CDM is one of the innovative mechanisms introduced under the Kyoto Protocol to help developed countries and economies in transition to cut the cost of meeting their emission targets by taking advantage of opportunities to reduce emissions or increase greenhouse gas (GHG) removals that cost less in other countries than at home.

They can buy the emissions reduced through projects from developing projects and use them to meet their Kyoto Protocol targets. Carbon is a tradable commodity now. One tonne of carbon dioxide reduced through CDM is known as a CER (certified emission reduction), which can be traded or sold.

The developed countries and economies in transition are committed to reducing their GHG emissions by 5.2 per cent under the Kyoto Protocol, which was adopted in 1997, in follow up to the adoption of the United Nations Framework Convention on Climate Change in 1992. Said C Viswanath, joint secretary, ministry of environment & forests, “CDM involves transfer of funds as well as technology from the developed world to the developing world.”

In fact, CDM projects are expected to lead to the transfer of environmentally safe and sound technology and know how, added Preety Bhandari, director, Policy Analysis, TERI. The public funding for CDM projects would be in addition to official development assistance and financial obligation under the UNFCCC/ Kyoto Protocol.

If India can capture a 10 per cent share of the global CDM market, annual CER revenues to the country could be US\$ 10-300 million, assuming that CDM is used to meet 10-50 per cent of the global demand for GHG emission reduction of roughly 1 billion tonne of carbon dioxide and prices range from US\$ 1-6 per tonne of carbon dioxide, according to TERI.

The Indian private sector is adopting a wait and watch approach, though. Said K P Niyati, chief of environment division at Confederation of Indian Industry, “Let us see how the market is going to develop.” Nevertheless some enterprising corporates have jumped onto the bandwagon. Said Chintan Shah, general manager (Strategic Planning) Suzlon Energy Limited: “We have already bagged a CDM project, which will be commissioned in Sankaneri in Southern Tamil Nadu.”

Apparently, it's a question of tapping the market—the right way. Only time will say how much of the pie comes India's way—and when

27) MORE ENERGY AND LESS EMISSIONS

AGI

June 30, 2003

Internet: <http://www.agi.it/english/news.pl?doc=200306301842-0202-RT1-CRO-0-NF51,NF82&page=0&id=agionline-eng.italyonline>

To produce more energy and create less emissions. This virtuous relation between environment and economy is foreseen by the programme for the reduction of greenhouse gases approved by the CIPE in the last few months in order to respect the aims of the Kyoto Protocol. The programme, developed by the Minister for the Environment and the Safeguard of the Territory, foresees in fact for the next few years an increase in electricity production of 20 percent faced with a reduction of emissions by 10 percent. This objective could be reached if the projects already initiated for the increase in the production capacity of thermoelectric plants from the current 35-40 percent to 50-55 percent are implemented; the use of renewable sources is increased from 18 to 26 percent; and the mix of combustibles is modified, in particular through a reduction of fuel oil and an increase in the use of natural gas. (AGI)

28) STATES WARMING UP TO CARBON DIOXIDE REDUCTION LAWS

Chicago Tribune

June 29, 2003

Internet: <http://www.centredaily.com/mld/centredaily/news/6197074.htm>

CONCORD, N.H. - (KRT) - Imagine this state's White Mountains no longer draped in white during the winter. The foliage that attracts thousands of leaf-peepers in the fall fails to burst into fiery reds and golds. Fierce storms batter beachfront property along the state's sliver of coastline. Hoping to stave off such a future and save a \$1.1 billion tourism industry, New Hampshire is at the forefront of an increasing number of states tackling a problem once assumed to be so big that only the federal government could take it on: global warming.

Last year, the New Hampshire legislature passed the first state law requiring power plants to reduce their emissions of carbon dioxide, the main greenhouse gas believed to be altering Earth's climate. New Hampshire is also part of a coalition of New England states and Canadian provinces that have pledged to slash carbon dioxide emissions. And a new coalition of environmental groups and political activists is launching an effort to make global warming an issue in the state's closely watched presidential primary next year.

With little prospect for a broad federal policy to control utility and vehicle emissions nationwide, more than half the states have taken matters into their own hands with policies that range from voluntary energy-efficiency programs to mandatory controls on power plants and vehicles. "There is sort of a vacuum in national leadership right now," said Adam Markham, executive director of the New Hampshire environmental group Clean Air-Cool Planet. "The only hope is to move things forward at the state and local level." The non-profit Pew Center on Global Climate Change cites 42 programs in 26 states as examples of how state governments are trying to control carbon dioxide, methane and other greenhouse gases. Among notable examples, California Gov. Gray Davis last year signed into law the first regulations on carbon dioxide emissions from vehicles, requiring automakers to achieve "the maximum feasible and cost-effective reduction" of such emissions starting with 2009 models.

New Jersey is aiming for a 3.5 percent reduction in its greenhouse gas emissions below 1990 levels through a statewide campaign to persuade utilities, industries, universities and other institutions to cut their energy consumption. The campaign is being financed by a charge on consumers' utility bills. Illinois, Iowa, Minnesota and Wisconsin are among 16 states that have set either mandatory standards or voluntary goals for electric utilities to produce a portion of their power from renewable sources such as wind and solar power. In an attempt to find a regional solution to the problem, the six New England states and five eastern

Canadian provinces pledged in 2001 that they would cut greenhouse gas emissions up to 20 percent from current levels by 2010, with a further 10 percent reduction by 2020.

Not all states are jumping aboard. Michigan, home of the automobile industry, and West Virginia, which relies on coal mining as an economic mainstay, are among several states that have decided not to take measures to cut carbon dioxide emissions. Two of the biggest sources of carbon dioxide pollution are coal-fired power plants and vehicles. After years of scientific uncertainty, most climate scientists have concluded that human activity is heating up the planet. Computer models predict that the buildup of greenhouse gases could lead to an increase of 1 to 5 degrees in Earth's average temperature in the next 50 years. That deceptively small figure could disrupt worldwide weather patterns and cause sea levels to rise as the polar ice caps shrink.

During the 2000 presidential campaign, George Bush promised to regulate carbon dioxide emissions. After taking office, Bush announced that regulating such emissions would strain an already weak economy. And, in 2001, the Bush administration pulled out of the Kyoto Protocol, the 1997 international agreement to control carbon dioxide emissions. The administration said the treaty was flawed because it did not require large developing countries such as India and China to cut their emissions. Meanwhile, economic growth, the demand for bigger vehicles and increased demand for electricity caused annual U.S. emissions of greenhouse gases to jump 14 percent from 1990 to 2000, according to the U.S. Environmental Protection Agency. States see a variety of risks ahead if temperatures rise. In the agricultural Midwest, growing seasons could change or droughts could become more frequent, cutting crop yields or leading to more irrigation, which would place greater demand on water supplies.

Coastal states that have enacted climate-change programs, such as New Jersey, cite the potential for greater beach erosion and oceanfront property damage from higher sea levels and more violent storms. New Hampshire officials fear higher average temperatures will lead to a drop in snowfall, the source of a \$209-million-a-year ski industry, and to a decline in sugar maples, which produce the most dramatic fall foliage. The three-month fall tourist season pumps \$888 million into the state's economy. "They're very important sectors for us," said Joanne Morin, climate-change manager in the state's Environmental Services Department. "Doesn't it make sense to take steps that are energy- and cost-efficient to address that?"

The state's energy-efficiency program is similar to efforts in other states to reduce electrical demand, but the Granite State's Clean Power Act of 2002 was the first in the country to require power plants to cut carbon dioxide emissions as part of a broad pollution-reduction effort. The law, which received bipartisan support, gives three New Hampshire power plants that burn coal, oil or natural gas until 2006 to cut emissions by about 3 percent. Supporters say that modest reduction is likely to be ratcheted up in the future. "My philosophy on any environmental legislation is that as long as the ball is heading down the field, we're going in the right direction," said Ted Leach, a Republican state representative who supported the Clean Power Act. "I looked at this as a starting place."

Leach is the Republican co-chairman of the Carbon Coalition, an amalgamation of environmentalists, politicians and interested citizens that was formed last month to call attention to global warming when New Hampshire takes center stage at the start of next year's presidential primary season. "We want to get this subject on the agenda of the presidential wannabes," Leach said. "The way you measure that is when global warming becomes part of the stump speech." Getting the issue on the national radar screen is important to the coalition because even large states can do little to affect the global buildup of greenhouse gases. If Illinois were a separate country, it would rank 29th in the world in such emissions, behind the Netherlands, Turkey and North Korea. But environmental policy experts say state programs could someday serve as a model for national global-warming programs, similar to state innovations in welfare reform and prescription drug coverage. "The bottom line is that it's unlikely these actions unilaterally are going to deliver huge reductions," said Barry Rabe, a University of Michigan professor who tracks state climate-change programs. "This is part of a very early testing of approaches and policies that could be picked up nationally."

29) CAMPAIGN TO PUSH USE OF MASS TRANSIT FOR KYOTO TARGET

The Japan Times

June 28, 2003

Internet: <http://www.japantimes.co.jp/cgi-bin/getarticle.pl5?mn20030628a6.htm>

The government said Friday it will campaign in 14 locations across Japan to encourage people to use public transport instead of cars. The campaign by the transport ministry is designed to help achieve reduction targets for greenhouse-gas emissions required under the 1997 Kyoto Protocol on global warming. In Chikusino, Fukuoka Prefecture, Nishi-Nippon Railroad Co. will give railway passengers discounts on parking fees in lots near Futsukaichi Station, while in Miyazaki Prefecture, Miyazaki Kotsu Co. will offer three times the number of reward card stamps for passengers traveling on certain dates. Kobe's transportation department is planning to offer discount tickets that allow an entire family to use public transportation with just one ticket. In Matsuyama, Ehime Prefecture, Iyo Railway Co. will provide IC cards that can be used for both buses and trams. The cards will enable unlimited travel once the upper limit of the daily fare has been surpassed. The ministry said it will shoulder part of the cost for the tests.

GLOBAL WARMING FUNDS

The Environment Ministry outlined on Friday six key pillars under which it will make budget requests for fiscal 2004, including measures to tackle global warming and foster environmentally friendly businesses. The global warming measures are in line with Japan's efforts to comply with the Kyoto Protocol, an international treaty to reduce greenhouse gas emissions.

30) WORLD EFFORT FOR 'CAPTURE' OF EMISSIONS GAINS AT TALKS

International Herald Tribune/ New York Times

June 26, 2003

Internet: <http://www.iht.com/articles/100853.html>

WASHINGTON An array of industrialized and developing countries have agreed on the outline of a cooperative research program aimed at capturing and storing carbon dioxide, the main smokestack emission linked to global warming. The agreement came halfway through a three-day conference in McLean, Virginia, organized by the Bush administration, which has insisted for more than a year that a technological breakthrough will be needed to stabilize levels of so-called greenhouse gases that trap heat in the atmosphere.

A buildup of those gases has been blamed by many scientists for most of a 50-year warming trend that could raise sea levels and disrupt climate patterns if emissions are not reduced. Most industrialized countries have ratified the Kyoto Protocol, a binding treaty that would require reductions in emissions of greenhouse gases. It awaits ratification by Russia. The Bush administration has rejected that approach, saying that climate science remains too uncertain to justify mandatory measures. It favors voluntary programs for curbing growth in the gases and long-term research on new nonpolluting energy sources or ways to sop up emissions from the burning of fossil fuels such as oil, natural gas and coal.

"Regardless of what target you choose," the energy secretary, Spencer Abraham, said, "no goal is going to be achieved unless we develop the new technologies to get there." One justification for pursuing that approach, U.S. officials and independent experts at the meeting said, is a projection that 90 percent of the increased demand for electricity worldwide in the next half-century will be met by burning fossil fuels. Washington wants to find ways to continue using coal, which remains plentiful and cheap, without adding to the atmosphere's burden of greenhouse gases.

At the meeting, officials from the United States, the European Union, Australia, Canada, China, India, Japan, Russia and several other countries said they planned to sign a charter Thursday under which they

would coordinate research projects on the process, called carbon sequestration. Energy experts from private environmental groups who attended the conference said that devising such techniques was important, but that without binding limits on emissions there would be no impetus for the power industry to install modernized equipment.

31) GUSTY BRITAIN IS BOOSTING WIND POWER TO FIGHT GLOBAL WARMING

Associated Press

June 26, 2003

Internet: http://www.enn.com/news/2003-06-26/s_5794.asp

DOUGLAS, Scotland — When the breeze blows the wrong way over the grassy hilltops above this quiet Scottish village, coal dust from the mines below can darken the air that powers the rows of slim white wind turbines. The two coal pits, providing one of Britain's oldest and dirtiest forms of energy, are just hundreds of yards (meters) from the sleek, modern windmills that many environmentalists hope will lead the way toward a future of clean, renewable power.

Britain's still-tiny wind-power industry is in the midst of a major expansion, with vast wind farms being constructed from the Scottish highlands to the Welsh countryside. More are on the way, too, thanks to new government rules requiring power companies to seek out sources of renewable energy.

The wind sector will have to grow even more quickly if Britain is to achieve its goal of getting 10 percent of all electricity from renewable sources by 2010, part of Prime Minister Tony Blair's plan to confront the threat of global warming.

Backers tout gusty Britain, one of Europe's windiest nations, as a natural home for wind energy. The same stiff breezes that turn Londoners' umbrellas inside out could light homes and run refrigerators and air conditioners around the country, they argue. "There's more wind than anyone knows what to do with," boasted Alison Hill, spokeswoman for the British Wind Energy Association, an industry group. "Our wind speeds are much higher (than elsewhere in Europe). I'm sure anyone who lives here will tell you that for free."

Britain has long lagged far behind its continental neighbors in developing ecologically friendly power sources. But Blair's government is taking seriously the need to reduce emissions of carbon dioxide and other greenhouse gases that come from burning fossil fuels and are blamed for warming the Earth.

Blair said in February that confronting environmental problems like global warming was as important as battling terrorism. He argued that the Kyoto treaty to reduce greenhouse emissions — rejected by U.S. President George W. Bush as too costly — did not go far enough. The prime minister pledged that Britain would seek to cut 60 percent from its carbon dioxide emissions by 2050, an ambitious goal that the Royal Commission on Environmental Pollution had recommended as necessary for the country to seriously confront climate change. That same commission chastised Britain in a 2000 report for failing to develop renewable energy as aggressively as other European countries.

Brian Wilson, who recently stepped down as energy minister, said before his departure that Britain had missed its chance in the 1980s to become a leading wind turbine manufacturer, a role Denmark grabbed instead. He added that the government hopes to make Britain the main producer of equipment to harvest power from the ocean's waves and tides, technology still being developed.

Germany now leads Europe in wind-energy production, with enough turbines installed to generate about 12,000 megawatts of power, or 5 percent of its electricity, compared with Denmark with 2,900 megawatts, or 20 percent of its needs, and Britain with 552 megawatts, or less than 0.4 percent of its electricity.

The United States has capacity to produce 4,685 megawatts, or less than 1 percent of its electricity consumption, from wind. One megawatt is enough to power between 500 and 600 European homes — or 300 homes in energy-guzzling America. Energy-producing capacity is measured by the number of megawatts generated at any given instant. Britain's lack of a major wind industry — combined with a deregulated energy market, strong winds, and last year's renewable requirement for 2010 — make it Europe's most attractive locale for wind energy development, consultants Ernst & Young said in a report. The government is also investing millions of pounds to boost the sector, which produces no pollution, and is speeding approval for new projects. "I think it's very challenging," Wilson said of the 2010 target. "We're capable of meeting it, but it will take a tremendous effort and commitment."

Scotland, with its heavy winds, mountains, and open spaces, is at the heart of Britain's wind aspirations, and many new sites are also planned in England and Wales. At the Hagshaw Hill wind farm above the old Scottish coal town of Douglas, just south of Glasgow, the winds blow strong and steady even on a day that feels calm at sea level. Twenty-six slim turbines, each 35 meters (115 feet) high, create no sound louder than a faint rustle as they turn, and sheep and cows graze in their shadows.

The eight-year-old wind farm run by Scottish Power is already being overtaken by new technology. Newer turbines are 100 meters (330 feet) tall and generate far more energy than Hagshaw Hill's. The machines are expected eventually to grow to 160 meters (530 feet).

Many believe the biggest wind power boom will eventually be in huge sites planned at sea, where winds are high and giant turbines can be installed without ruining neighbors' views. Offshore wind farm technology is less advanced than the well-established land turbines, however, and startup costs remain high.

Supporters say wind energy is growing so fast it will account for more than half of the 2010 renewable requirement, with hydropower contributing most of the rest. "We're definitely behind" in developing renewable power sources, said Alan Mortimer, head of wind development at Scottish Power. "But we're catching up."

32) US, EU TO SEEK CARBON DUMPS TO FIGHT CLIMATE CHANGE

Planet Ark

June 23, 2003

Internet: http://story.news.yahoo.com/news?tmpl=story&cid=570&ncid=753&e=7&u=/nm/20030623/sc_nm/environment_carbon_dc

BRUSSELS (Reuters) - The United States will join forces with the European Union and other countries this week to develop a new technique to fight global warming -- pumping carbon dioxide underground, EU sources said Monday. The move will be another symbol of rapprochement between the EU and the United States on the climate change issue. They fell out in 2000 when Washington withdrew from the Kyoto Protocol on cutting greenhouse gas emissions. "Carbon sequestration" is a way of keeping CO₂ from fossil fuel use entering the atmosphere and adding to the greenhouse effect which prevents heat radiating back into space by injecting it into rock strata, mines or gas or oilfields.

On the sidelines of a EU-U.S. summit in Washington Wednesday, EU Energy Commissioner Loyola de Palacio will sign an international charter with the United States and other countries including Brazil, Canada, Russia and China creating a "carbon sequestration leadership forum." "It is a new charter on cleaning up carbon," an EU source told Reuters. In a similar move earlier this month the EU and the United States agreed to collaborate on researching hydrogen power, which could have less environmental impact than other fuels. Some environmentalists are skeptical of both hydrogen and carbon sequestration, saying they will allow the continued use of fossil fuels coal, oil and gas rather than a switch to renewable energies like solar and wind and reducing energy use.

33) CARBON SEQUESTRATION FOCUS OF LEADERSHIP FORUM

ENS

June 23, 2003

Internet: <http://ens-news.com/ens/jun2003/2003-06-23-04.asp>

WASHINGTON, DC, June 23, 2003 (ENS) - Energy ministers from 14 countries and the European Union gathered today in Tyson's Corner, Virginia for a three day discussion of ways to reduce greenhouse gas emissions using commercially workable carbon capture and storage technologies known as carbon sequestration. The first meeting of the Carbon Sequestration Leadership Forum, hosted by the U.S. State and Energy Departments, will identify potential areas of multilateral cooperation on carbon sequestration - the capture and permanent storage of carbon dioxide emissions that would otherwise be released into the atmosphere. Carbon dioxide from the burning of fossil fuels is one of the main greenhouse gases responsible for global warming. Countries represented at the forum include Australia, Brazil, Canada, China, Colombia, India, Italy, Japan, Mexico, Norway, Russian Federation, South Africa and the United Kingdom. Current plans call for government officials to convene formally twice a year.

In addition to exchanging information, delegations attending the Carbon Sequestration Leadership Forum will identify joint projects that bring together government and private sector representatives from member countries. The forum will provide an international venue for planning future, multilateral carbon sequestration projects. One such project would be the new prototype power plant called FutureGen that was announced by U.S. Energy Secretary Spencer Abraham in February. This government-industry project, estimated to cost one billion dollars over the next 10 years, would combine electricity and hydrogen production with the virtual total elimination of harmful emissions.

The hydrogen produced by the plant will be used as a clean fuel for electric power generation. Carbon sequestration will be one of the primary features that sets the prototype plant apart from other electric power projects, with the initial goal calling for capture of at least 90 percent of the plant's carbon dioxide. In the future, the plant could become a model hydrogen production facility for President George W. Bush's initiative to develop a new fleet of hydrogen powered cars and trucks. The United States will use the opening meeting of the Leadership Forum to invite other nations to join the FutureGen initiative. Mike Smith, assistant secretary for fossil energy at the Energy Department, told reporters before the conference that international cooperation will help avoid duplication of work, save money and speed needed breakthroughs in carbon sequestration technologies.

"The forum will collaborate on research and development projects to reflect the priorities by member nations," he said. "And the forum will interact with all sectors of the international research community, including industry, the academic community, and government and nongovernment organizations."

The development of carbon sequestration technologies as a means of reducing carbon dioxide emissions is a key component of President Bush's climate change initiative, which calls for reducing America's greenhouse gas intensity by 18 percent over the next 10 years. Tied to economic productivity, greenhouse gas intensity is the amount of greenhouse gas emissions per unit of Gross Domestic Product. The forum will focus on technologies to separate carbon dioxide from the emissions of coal fired power plants and store it in underground geological formations.

Possible storage places include oil and gas reservoirs, unmineable coal seams and deep saline reservoirs, or the ocean depths. Forests, crop and agricultural lands, and in wetlands can also sequester carbon dioxide. The technology to accomplish sequestration exists today, but it can raise energy costs by 50 percent or more. The goal of sequestration research and development is to achieve sequestration with less than a 10 percent increase in energy system costs, or roughly \$10 per ton of carbon emissions avoided. Energy experts believe it will be necessary to employ these new technologies to stabilize and ultimately reduce concentrations of atmospheric carbon dioxide, which are expected to increase in the future. Global emissions of carbon dioxide from human activities are projected to increase 60 percent by 2020 as many nations continue to rely on coal, oil and natural gas to fuel economic growth.

Because of its abundance and low cost, coal now accounts for more than half of the electricity generated in the United States. While many countries, including the United States, are committed to the use of renewable energy sources, fossil energy use for power generation worldwide is projected to double by 2030. The International Energy Agency estimates that overall world coal use will increase by about 50 percent between now and 2030 and by nearly two-thirds for power generation, mostly in developing countries like India and China. Smith said that international cooperation is already underway in some areas of carbon sequestration. At the Weyburn oil recovery project in Saskatchewan, Canada carbon dioxide from the Great Plains Coal Gasification Plant in the state of North Dakota is being injected into an active oil field. Scientists from 18 nations are monitoring the project to determine if the carbon dioxide remains sequestered in the field. The only commercial geological sequestration effort to inject carbon dioxide into a saline formation is taking place under the North Sea. Since 1996, the Norwegian oil company Statoil has injected about one million tons each year of recovered carbon dioxide into the Utsira Sand, a saline formation under the North Sea. The amount being sequestered is equivalent to the output of a 150 megawatt coal fired power plant.

See Also:

Deep rocks might ease global warming; or leak? Planet Ark, June 27, 2003;
Internet: <http://www.planetark.org/dailynewsstory.cfm/newsid/21320/story.htm>

34) COALITION SOUNDS ALARM ON IMPASSE OVER ENERGY POLICY

Washington Post
June 19, 2003

Internet: <http://www.washingtonpost.com/ac2/wp-dyn?pagename=article&node=&contentId=A10952-2003Jun18¬Found=true>

A coalition of environmental, labor and foundation leaders, headed by senior aides to former presidents George H.W. Bush and Bill Clinton, warned yesterday that significant progress on critical energy and environmental goals is gridlocked by partisan politics and special interest lobbying. An energy bill has passed the House but may die in the Senate. Republicans and Democrats are warring over global warming and environmental issues, and regional disputes have divided the electric power industry. "Energy policy is very hard to do because of the power and inertia in the energy industry. To dent that you need a broad coalition of willing partners," said Timothy E. Wirth, former Democratic senator from Colorado and president of the United Nations Foundation. The foundation, formed by billionaire Ted Turner, is the primary sponsor of the Energy Future Coalition, whose report was issued yesterday.

Meanwhile, Sen. Pete V. Domenici (R-N.M.), chairman of the Senate Energy and Natural Resources Committee, predicted yesterday that the Senate would vote on the critical remaining issues, including global warming, before Congress recesses in August. "We will have an energy bill," he said. Other senators and legislative aides are not so confident. Even if the legislation passes, it will make only a small dent in the nation's energy and environmental challenges, Wirth and other coalition members said. The coalition is led by Wirth; C. Boyden Gray, former counsel to President George H.W. Bush; and John D. Podesta, White House chief of staff in the Clinton administration. The coalition has sponsored working groups of environmentalists, industry and labor representatives from the coal, auto, electricity and agricultural sectors. Much more aggressive action is needed to reduce greenhouse gas emission in the United States and to reduce dependence on foreign oil imports by spurring sales of high-mileage hybrid engine automobiles and developing motor fuels from agriculture, according to the coalition.

The group calls for a one-third reduction in greenhouse gas emissions from U.S. power plants and industry, and an equal reduction in oil consumption over the next 25 years. But to keep industry, environmental and labor participants around the table, the organizers did not go beyond long-term goals, avoiding controversial implementing actions. "We're not there yet," Wirth said. The coalition didn't take sides, for example, on the expected Senate showdown over proposals for mandatory targets for greenhouse gas reduction, opposed by President Bush but pushed by Senate Democrats who hope to oppose his reelection in 2004. "I don't think

there's anything in this that is contrary to the president's plan," Gray said. "It builds on everything they are doing." Podesta and other participants said that mandatory requirements are inevitable. But that view isn't in yesterday's statement, either. "They've done a remarkably good job in bringing disparate and opposing groups together and finding common points of agreement," said Brent Erickson, a vice president for the Biotechnology Industry Organization. Two combatants on global warming issues -- the Natural Resources Defense Council and the coal industry -- spent months seeking a common long-term goal. "Just having that discussion was significant," said David G. Hawkins, director of the council's Climate Center.

35) W. HOUSE EDITED GREENHOUSE REPORT

CBS

June 19, 2003

Internet: <http://www.cbsnews.com/stories/2003/06/19/tech/main559380.shtml>

(CBS/AP) White House editing of an EPA report on environmental conditions will limit discussion of global warming, a newspaper reports. The draft report, due out next week, will discuss global warming in what The New York Times, which saw copies of the report it verified as authentic, describes as "a few noncommittal paragraphs." It's the second time in six months the administration has cut some discussion of global warming out of a report. In September, discussion of climate change was kept out of a report that had for six years contained a section on global warming. The administration says the issue of climate change will be addressed in an upcoming, separate report.

In discussions about the new paper, the White House Council on Environmental Quality and Office of Management and Budget deleted references to scientific research linking car exhaust and smokestack emissions to global warming and its consequences, the Times reports. The administration also cut a reference to a 2001 study by the National Research Council on how humans have contributed to global warming. Instead of referring to a 1999 report that found a substantial rise in global temperatures, the White House wished to quote a study doubting that claim — one funded partly by the American Petroleum Institute. According to the Times, one section of the report originally started with "Climate change has global consequences for human health and the environment."

It was replaced with: "The complexity of the Earth system and the interconnections among its components make it a scientific challenge to document change, diagnose its causes, and develop useful projections of how natural variability and human actions may affect the global environment in the future."

After seeing the White House edits, the Times reports, the EPA decided to cut the section to a bare minimum to avoid political fallout over the evidence it did or did not review.

EPA director Christine Whitman, due to leave her post in late June, defended the draft. "The first draft, as with many first drafts, contained everything. As it went through the review, there was less consensus on the science and conclusions on climate change," Ms. Whitman told the Times. "So rather than go out with something half-baked or not put out the whole report, we felt it was important for us to get this out because there is a lot of really good information that people can use to measure our successes." But an April 29 EPA memo said the White House cuts meant the global warming section "no longer accurately represents scientific consensus on climate change," the Times reports.

The Bush administration has been at odds with many environmentalists over its response to global warming. President Bush has refused to honor the Kyoto Protocol, which called for developed countries to reduce emissions of carbon dioxide, a gas associated with global warming. Last June, the White House dismissed a report that said global warming was likely due to human activities.

The president referred to it as "the report put out by the bureaucracy." According to a majority of scientists, so-called "greenhouse gasses" like carbon dioxide prevent heat from escaping the earth's atmosphere, allowing temperatures to build. Some — but not all — scientists believe the gradual warming of the Earth

could change weather patterns, disrupting agriculture, endangering animals and plants and triggering new epidemics. Melting ice caps could raise sea levels and flood coastal areas.

However, other scientists are skeptical that the effects of global warming could actually outpace nature's ability to adapt to the new conditions, or humans' capacity to change. There is also disagreement over how to reduce global warming. The Bush administration says one flaw in the Kyoto Protocol was that it largely exempted developing countries, like China, even though they are poised to be the biggest polluters in the future. Kyoto puts the onus on developed countries like the U.S., which have historically produced the most emissions. The developing countries counter that as they catch up to richer countries, they must be allowed the same unfettered growth that Western countries enjoyed. The White House also says reducing carbon dioxide would cost jobs. Critics counter the consequences of global warming would be even costlier. But since the effects of global warming will only be felt in the future, it is difficult to tell whether it is worth enduring those costs now.

See Also:

Bush team takes global warming off the agenda, Sydney Morning Herald, June 21, 2003;
Internet: <http://www.smh.com.au/articles/2003/06/20/1055828496212.html>

White House cuts global warming from report, The Guardian, June 20, 2003;
Internet: <http://www.guardian.co.uk/climatechange/story/0,12374,981127,00.html>

36) NGOS WANT INDUSTRIES TO FOLLOW EUROPE'S KYOTO APPROACH

IPS

June 17, 2003

Internet: <http://ipsnews.net/interna.asp?idnews=18833>

OTTAWA, Jun 17 (IPS) - Canada's federal government should force the country's most polluting industries to adopt a European-style system of trading greenhouse gas emissions, or it risks failing to meet its goals under the Kyoto Protocol, say environmental groups. Ottawa should also advance the start-up date for industries to account for their greenhouse gas emissions by three years to give the largest ones time to discover potential problems in their pollution control systems, say Climate Action Network Canada (CANC) and the Pembina Institute.

The country's heavy industries are required by the accord to cut 92 mega-tonnes of greenhouse gas pollutants by 2010 but appear un-ready to do so, fuelling fears that they will resort to shady accounting to circumvent quotas on greenhouse gas emissions, says a report by the two groups. "The accounting for those emissions must be done right. We want a strong legislative framework so that industry negotiates seriously and the system can be enforced when the Kyoto period begins in 2008," said Pembina Director Matthew Brownley. "Coal-fired emissions need to be especially targeted." Coal-powered plants in Canada's largest province, Ontario -- said to be the most polluting in North America -- were targeted last month by New York state in the first-ever complaint against a Canadian jurisdiction under the North American Free Trade Accord (NAFTA).

Under Kyoto, industrialised nations must reduce their emissions by an average of about seven percent below 1990 levels by 2012. Canada will begin phasing in its cuts over a two-year period beginning in 2008.

Pembina and the CANC want Canada to follow the European Union's lead of establishing a greenhouse gas emissions trading system in 2005, three years before the Canadian government ordered its Kyoto quotas go into effect. They say those extra years are needed to make sure industries have workable Kyoto implementation plans in place. "There will be glitches that are ironed out. We need to ensure that Canadian industry begins to work now and not wait until the eleventh hour," Bennett said. Emissions trading is regulated by the governments that signed Kyoto, which includes most of the world's industrial nations but not the United States. Governments assign allowable levels to various industries and industrial sectors, and

those that generate less greenhouse gas than the allowable limit may "trade" or "sell" their quotas to other industries. Countries, also, may trade surplus quotas.

"The example the EU is setting is an important precedent," said Bennett. "It's not like Canada would be sticking its neck out. There are risks of failure in 2008. We know some companies are relatively far sighted and will be prepared, and others will wait until the last minute and hope that the problem goes away." "We've seen that very often with other environmental initiatives. If companies wait until the last minute and don't prepare, they'll end up buying credits from overseas. What we want to see is the maximum amount of reductions in Canada," Brownley added.

According to the Canadian federal climate change plan released last November, Canada needs to reduce greenhouse gas emissions by 240 mega tonnes by 2010, and, of that amount, 92 mega-tonnes must be reduced by industry, said Bennett. Large coal-fired power plants, oil and gas industry, pulp and paper mills, steel mills, and cement factories are among the large industries that are targeted for the emissions cuts. About 55 mega-tonnes of that total will be reduced at industry expense through an emissions trading system. Industry, as a whole, produced 55 per cent of Canadian greenhouse gas emissions in 2001. But the government says it plans to stick to its Kyoto timetable. "(The government) been working with the large emitters to ensure that they fulfil their targets of 55 mega-tonnes," Herb Dahliwal, minister of natural resources, told a parliamentary committee Thursday. "What we need in terms of legislation to make sure that happens, in terms of any regulatory system, that's taking place right now. We're very committed to make sure that we don't create a system that makes a whole new bureaucracy, that's transparent and that is flexible and simple." The Canadian government is also planning to rebate at least 110 million U.S. dollars to Canadian homeowners who install energy-savings systems. Details of that plan are expected to be released later this week.

37) CANADA EXPECTED TO RELEASE FURTHER DETAILS ON IMPLEMENTING KYOTO PROTOCOL OTTAWA

AFP

June 10, 2003

Internet: <http://www.terradaily.com/2003/030610214307.dypr9x2j.html>

The Canadian government will start publishing more concrete plans of how it intends to implement the Kyoto Protocol on reducing greenhouse emissions over the next few weeks, Canada's environment minister said Tuesday. Canada formally ratified the protocol on December 17 at the United Nations, becoming the 100th nation at the time to do so. Under the protocol, Canada is to commit itself to cutting its greenhouse gas emissions by six percent by 2010 from 1990 levels, or about 240 megatonnes (or million tonnes) a year.

Environment Minister David Anderson, appearing before a parliamentary committee Tuesday, faced Canadian critics of the plan who complained Ottawa had yet to publish any concrete implementation plans. Anderson, acknowledging these complaints Tuesday, said details would be released "over the summer." In November, Ottawa presented a rough outline of how it intended to meet its Kyoto obligations. But critics lamented the three-stage plan was extremely short on details. While much of the debate in Canada so far on Kyoto had been over what it would cost Canada, Kyoto should be regarded as "unleashing the power of innovation and good ideas," Anderson said.

Other countries were already taking advantage of the new international scenario in the wake of Kyoto, he said. Iceland, for instance, has decided to become the first country in the world "to be depending entirely on hydrogen" for its energy needs. "That will take 40 to 50 years to complete," he added. Even the United States, which has refused to join the Kyoto pact, was already working on developing cleaner forms of energy and power. "The real question," Anderson said, "is not 'what can we afford' but 'how can we develop this new business'."

38) PRESIDENTIAL HOPEFULS PUSH ENERGY ALTERNATIVES, PAN KYOTO

IPS

June 10, 2003

Internet: <http://www.commondreams.org/headlines03/0610-01.htm>

NEW YORK - As the U.S. Congress debates an energy bill roundly rejected by environmentalists and public health advocates, the Democratic hopefuls for the presidency in 2004 are seeking to distinguish themselves with energy plans that would wean the country from its addiction to fossil fuels. Former Vermont governor Howard Dean has sided most closely with the Bush administration, endorsing the National Governors Association policy, which opposed the Kyoto Protocol unless it included mandatory emissions cuts for developing countries. The policy recommended that the United States "not sign or ratify any agreement that would result in serious harm to the U.S. economy."

While differing in details, these alternative energy plans all vow greater investments in renewable energy sources like wind, solar and biomass, stepping up fuel efficiency for vehicles and protecting sensitive oil-rich areas that President George W Bush, a Republican, has targeted for drilling. "All of the Democratic proposals are head and shoulders above what the Bush administration has put forth," said Debbie Boger, the Washington representative for global warming and energy of the Sierra Club. Most of the Democrats have repeatedly attacked Bush for pulling out of the Kyoto Protocol, an international treaty that calls for nations to reduce greenhouse gas emissions--a major cause of global warming, scientists say--by six percent below 1990 levels by 2012. Former President Bill Clinton signed Kyoto, but Bush refuses to submit the treaty to Congress for ratification because he says industrialized nations like the United States are unfairly singled out.

Few of the Democratic contenders themselves unconditionally support Kyoto as written. Senator Joe Lieberman of Connecticut was a member of the official Senate observation group to the Kyoto conference on global warming. He supported the Clinton position at the conference, but voted in 1997 to require all nations in the developing world, including giants China and India, to be included in Kyoto, in effect killing the treaty. Lieberman also voted in 2000 to block funding to implement Kyoto, again blocking the deal. The senator, who leads among contenders, has since vowed to "move America back into the Kyoto process." In January, he unveiled a bill that would require U.S. industry to reduce carbon dioxide emissions to 2000 levels by the year 2010 and to 1990 levels by 2016.

Massachusetts Senator John Kerry, a delegate to the Earth Summit in 1992 and the Kyoto climate talks in 1997, has also argued that developing countries be held to Kyoto. He co-sponsored a State Department bill amendment that directed the Bush administration to work toward revising the treaty by promoting shared international responsibility of all major world powers to cut carbon dioxide emissions. Former Vermont governor Howard Dean has sided most closely with the Bush administration, endorsing the National Governors Association policy, which opposed the Kyoto Protocol unless it included mandatory emissions cuts for developing countries. The policy recommended that the United States "not sign or ratify any agreement that would result in serious harm to the U.S. economy."

Of the Democrats now running, only Ohio Congressman Dennis Kucinich has stated, "the U.S. must ratify the Kyoto Protocol." While Kyoto remains a political hot potato, most Democrats are firmly opposed to the Bush energy plan now before the Senate. The bill, which some analysts give a less than 50 percent chance of passing, increases subsidies to the oil, coal and nuclear industries, and provides for only modest increases in the fuel economy of cars, sport utility vehicles (SUVs) and other light trucks. The issue is important because the Department of Energy warns that U.S. dependence on oil imports is growing. Imports now meet 55 percent of U.S. petroleum demand and are expected to account for 68 percent by 2025.

Many observers believe that the U.S.-led invasion of Iraq was motivated primarily by the need to secure oil reserves to meet that rising demand. "In this energy fight, the real test of leadership may come if most of the pro-environment amendments are rejected," said Adam Kolton, legislative director of the National Wildlife Federation. "If that happens, we'll need champions who go to the floor and do all they can to block the bill,"

he added in an interview. Amendments include one by Lieberman to set concrete timetables to cut greenhouse gas emissions, and others to increase fuel economy for cars and SUVs and to require that utilities produce an increasing percentage of their electricity from renewable sources. "Big spending on wasteful and unnecessary energy subsidies could not come at a worse time," Aileen Roder, program director of Taxpayers for Common Sense, told IPS. "The United States is facing its largest budget deficit in history. At a time of fiscal belt-tightening, this \$58 billion legislation is irresponsible and bad policy."

Kerry has endorsed a Strategic Energy Initiative that would give the private sector incentives to explore domestic and alternative energy sources. Some \$16 billion in tax credits would be spent on domestic oil production and development of alternative fuels, which could reduce foreign oil imports by as much as three million barrels per day. Dean promised to set a standard of 15 percent renewables by 2010 and 20 percent by 2020, partly by investing heavily in wind and solar technology. Senator John Edwards of North Carolina has proposed creating bio-refineries in rural communities to transform farm wastes like cornhusks and crops like switch-grass into energy that can be sold for profit. He would also require increased use of renewable fuels for electricity.

Representative Dick Gephardt of Missouri has taken the most drastic position, pushing for "energy independence" in 10 years, a goal that even the most fervent environmentalists view as unrealistic. Gephardt backs the 'Apollo Project,' a long-term plan that would slash demand for oil by at least 2.4 million barrels per day by 2020 and boost renewable resources to meet 12 percent of the country's electricity needs by 2015. The ambitious plan, drafted by Representative Jay Inslee and signed by 39 members of the House, would also create one million highly skilled clean energy-related jobs by 2015.

The Republicans blocked a vote on the Apollo Project, and Inslee says he will now introduce the plan as stand-alone legislation in the coming weeks. According to the latest CNN-Gallop poll, Lieberman is leading the pack of Democratic hopefuls with 20 percent public support, followed closely by Kerry (17 percent). Kucinich came in last, with two percent.

39) USDA TEAMING WITH FARMERS TO FIGHT GLOBAL WARMING

Planet Ark

June 9, 2003

Internet: <http://www.planetark.org/dailynewsstory.cfm/newsid/21095/story.htm>

BONNER SPRINGS, Kan. - The U.S. Department of Agriculture is setting up incentives for farmers to help reduce greenhouse gas emissions in the battle against global warming, U.S. Agriculture Secretary Ann Veneman said. Veneman said the USDA will provide an unspecified amount of financial incentives for farmers, as well as technical assistance and training in management practices to increase the removal of harmful carbon dioxide and other gases from the atmosphere, a process called "carbon sequestration." "These actions will help ... to protect the environment and conserve our resources for future generations," Veneman said, in a speech delivered at the National Agricultural Center and Hall of Fame, based in Bonner Springs, Kansas, a rural area about half an hour outside Kansas City. "This is good for the environment and good for agriculture."

Veneman said forest, crop and grazing land conservation actions will be key to greenhouse gas reductions. She said manure management, improved fertilizer use and fuel efficiencies can also help reduce the harmful gases. The USDA is revising its programs to put a priority on greenhouse gas reduction efforts and is working with private partners to test new sequestration practices, Veneman said. Carbon sequestration is a natural process in which plant life removes gases from the atmosphere and transforms them within the soil to substances beneficial to vegetation and crops. The USDA estimates that by focusing attention on the problem and making a federal investment of almost \$3.9 billion in agriculture and forest conservation in fiscal 2004, a reduction of roughly 12 million tons of greenhouse gases can be achieved annually by 2012, or 12 percent of the Bush administration's overall goal.

PROJECTS

40) MATSUSHITA INTRODUCES GREENHOUSE-GAS TRADING SCHEME

Japan Today

July 2, 2003

Internet: <http://www.japantoday.com/e/?content=news&cat=4&id=265128>

OSAKA — Matsushita Electric Industrial Co said Wednesday its group's 125 factories in Japan have introduced an emissions trading scheme on a trial basis to reduce carbon dioxide and other greenhouse-gas emissions. The move is intended to achieve the target to cut greenhouse-gas emissions required under the 1997 Kyoto Protocol on global warming, which Japan has ratified.

41) CARBON DIOXIDE PROJECT IN INDONESIA TO BEGIN

Asia Pulse

July 1, 2003

Internet: <http://www.atimes.com/atimes/Japan/EG01Dh01.html>

TOKYO - Kansai Electric Power Co and Electric Power Development Co will participate in a carbon dioxide recycling project in Indonesia led by Nissho Iwai Corp and Mitsubishi Heavy Industries Ltd. The project - estimated to cost about 100 billion yen (US\$847 million) - collects carbon dioxide from such facilities as electric power plants and injects it into the ground.

The project was started last June through a joint effort between Nissho Iwai, Mitsubishi Heavy Industries and an energy research and development organization affiliated with Indonesia's Ministry of Energy and Mineral Resources.

Kansai Electric, which jointly developed decarbonization technology that extracts carbon dioxide from exhaust gases with Mitsubishi Heavy Industries, will determine whether the technique can be applied to this project. By applying the expertise gained from previous emissions gas reduction projects, Electric Power aims to determine whether the operation can be commercialized.

Both firms will decide on their investment levels pending the survey results. While Japanese companies are required to cut carbon dioxide emissions based on the Kyoto Protocol, the potential reductions in domestic operations are limited. By cooperating in overseas efforts, companies are able to secure emission rights while meeting the overall reduction target.

42) BUSH LOOKS TO NATURE TO CUT GAS EMISSIONS

News Leader

June 28, 2003

Internet: <http://www.news-leader.com/today/0628-Bushlookst-92045.html>

Washington — President Bush and his administration want to enlist nature in their efforts to reduce emissions of carbon dioxide, one of the heat-trapping gasses associated with climate change.

The Agriculture Department is willing to pay farmers to grow crops, foresters to plant trees and ranchers to care for their grazing lands to achieve terrestrial carbon sequestration: the use of plants to filter out carbon dioxide from the air, break it down to carbon and to store it in the soil. Through old and new conservation programs authorized in the 2002 farm bill, the Agriculture Department estimates it can remove 12 million metric tons of carbon from the air by 2012.

Environmentalists say the plan could help reduce carbon dioxide levels, but they believe a more effective approach would be new federal regulations requiring industries to cut their output of climate-changing gases. Carbon sequestration, some worry, is just the latest effort by the Bush administration to avoid rules that could prove costly for business. They have only to look at Bush's reversal on mandatory controls on carbon dioxide emissions from power plants shortly after he took office. As a presidential candidate, he had backed regulations. "Let's be clear, this is not a panacea," said Debbie Reed, director of the National Environmental Trust's Global Warming Campaign. "At best, if we put everything into it, it could buy us 10 years on (reducing) emissions."

The world is searching for ways to reduce carbon dioxide and methane emissions because there is an emerging scientific consensus that human activities — cutting down forests and burning fossil fuels such as coal and oil — are elevating concentration of both gases and slowly raising the Earth's temperature. In industrial nations, power plants, manufacturers, petroleum refiners and other commercial processes are the prime carbon dioxide sources. But James Connaughton, Bush's environmental policy adviser, makes no apologies for rejecting calls for restrictions on carbon dioxide emissions. The president in 2001 rejected the Kyoto Protocol, an international treaty that requires participating countries to reduce carbon dioxide emissions below their 1990 levels, because he and his advisers believed it would restrict economic growth.

The United States is the world's largest single producer of manmade greenhouse gas, contributing nearly 20 percent of such emissions. "If you produce (emissions) and capture them, it's fine. It's like recycling," said Connaughton, who is chairman of the White House Council on Environmental Quality. The administration wants to rely on voluntary compliance and incentives to reach its goal of an 18 percent reduction in U.S. greenhouse gas intensity level by 2012.

The Agriculture Department estimates that its conservation programs will account for 12 percent of the reduction. Officials calculate conservation programs have already sequestered 33.1 million metric tons of carbon in the ground. However, one problem still to be solved is creating standards for measuring just how much carbon such programs add to the soil.

The administration has made carbon sequestration one of the environmental goals of agriculture and forest conservation programs. In the 2002 farm bill, Congress authorized more money for most of the programs so more farmers and ranchers could be included. For example, the maximum number of acres that could be enrolled in the Conservation Reserve Program, which pays participating farmers yearly rental fees for idling highly erosion-prone land, went from 36.4 million acres to 39.2 million acres. The Environmental Quality Incentives Program program, which generally pays farmers or ranchers 75 percent of the cost of environmental or land-use improvements, saw its authorized funding go from \$1.3 billion over seven years to \$5.8 billion over six years.

43) WORLD BANK PROJECT WILL DRAW POWER FROM TRASH

The Mercury

June 27 2003

Internet: http://www.iol.co.za/index.php?click_id=13&art_id=vn20030627034449644C532224&set_id=1

The infamous Durban landfills are to be put to good use in a multimillion-rand project set up to provide electricity to at least 9 000 families in the eThekweni municipality and generate more than R56-million in revenue for the city. The plan, a brainchild of the World Bank, is to harness the "large volumes" of gases emitted daily from the three major dumps in La Mercy, Springfield Park and Mariannhill and convert it into power. On Thursday night, deputy mayor Logie Naidoo said the municipality was the first in the country to be selected by the World Bank as a launch site for the project. The region is expected to act as a pilot for the idea to be implemented elsewhere. 'The project realises an estimated net profit of R56,9 million to the city'

Communities near the dumps are expected to breathe a sigh of relief as the project means the emissions from the landfills, which include a strong stench, will be contained and environmentalists will be particularly

excited, according to a supporting document. The greenhouse effect of methane gas, a major component of the gases emitted from the dumps, would be suppressed and the gas would be turned into electricity. The idea was first introduced to the eThekweni Solid Waste officials by representatives of the Prototype Carbon Fund, an environmentalist body which is attached to the World Bank, when they met during the World Summit on Sustainable Development held in Johannesburg last year.

The meeting came soon after the city, with assistance from the University of Natal, had completed its research into projects for the management of landfill gas emissions. According to a document before the council, the overall aim of the project is to develop clean technology to combat climate change by way of reducing greenhouse gas emissions to the atmosphere. 'We think it's a very innovative project'. In pushing for the idea, the World Bank blames these emissions for global warming and climate change, saying the conditions are causing serious droughts the world over. It is estimated that 80 percent of the gas coming from the dumps would be piped to generators for the generation of power envisaged to be sustained at 10Mw and fed directly to the city's grid.

"This supply will be sustainable for 24 hours daily and all year round. This can be further equated to power for 9 000 average-sized homes or, alternatively, 25 000 low-cost homes," officials said. "The project realises an estimated net profit of R56,9 million to the city." It is expected to get off the ground as soon as an environmental impact assessment has been completed at the end of the year. The assessment will be done together with consultation of the public and the private sector. To start the project, R12,4-million would be sought from the state treasury as no provision has been made in this financial year's budget. "We think it's a very innovative project. We are excited that our city was chosen (for the pilot project). We hope to generate substantial energy for our people, and the project would have positive spin-offs in terms of job creation for both the unskilled and highly skilled labour," said Naidoo.

44) MINISTRY GETS AGGRESSIVE ON GREEN PROJECTS

Financial Express

June 27, 2003

Internet: http://www.financialexpress.com/fe_full_story.php?content_id=37103

It's like convergence of interests. The environment and forests ministry is getting actively drawn into pushing for industrial projects, which are environmentally correct. At the end of the two-day workshop on 'Clean development mechanism — An emerging opportunity for Indo-Dutch cooperation', here on Friday, the ministry has been requested to take a lead in collecting responses to explore bilateral cooperation between the two countries on clean development mechanism (CDM) projects. In fact, project ideas from NTPC and MCD also came up for discussion.

"It will take us some time to take it further from here," said Lex de Jonge, head, CDM division in the Dutch ministry of housing, spatial planning and environment. The workshop was organised by the Dutch embassy in coordination with Teri. The clean development mechanism was introduced under the Kyoto Protocol to help the developed countries and economies in transition cut the cost of meeting their emission targets by reducing emissions or increasing greenhouse gas removals in developing countries like India. The developed countries and economies in transition are committed to reducing their GHG emissions by 5.2 per cent under the Kyoto Protocol, which was adopted in 1997.

Developing countries too will benefit because clean development mechanism projects are expected to lead to the transfer of environmentally safe and sound technology and know how to them. The Netherlands is one of the few countries in the world which has been implementing CDM through a number of approaches— international carbon purchase tender, multilateral development banks and a private bank. Now the Dutch government is exploring bilateral cooperation with countries like India. The workshop was one such step in that direction.

45) \$380M FOR AIR POLLUTION

New Vision (Kampala)

June 24, 2003

Internet: <http://allafrica.com/stories/200306240468.html>

The World Bank has named Uganda and Kenya among African countries to benefit from the \$380m for the private sector to participate in agro-forestry and afforestation projects, David Muwanga. The funds that are in three phases, include the World Bank bio-carbon fund and the community development carbon fund both totaling \$200m and the World Bank Carbon Fund totaling US\$ 180m. So in Africa, the World Bank has selected Uganda and Kenya among other countries to benefit from the fund that aims at protecting the environment in developing countries," Charles Cormier of the World Bank Institute told members of private sector at a two-day Clean Development Mechanism capacity building workshop at the International Conference Centre at the weekend.

Cormier, however, clarified that the \$380m is not only for Kenya and Uganda but other developing and developed countries where greenhouse gases are emitted and seriously affect the environment. Clean Development Mechanism of the Kyoto Protocol is an instrument of cooperation between developed and developing countries that aims at attracting the private sector to participate in protecting the environment by reducing greenhouse gas emissions and re-planting trees on a large scale. The Uganda Investment Authority organised the two-day workshop for its members to make them aware of the existing investment opportunities.

46) DELIVERING MORE THAN ELECTRICITY

World Bank

June 24, 2003

Internet: <http://web.worldbank.org/WBSITE/EXTERNAL/NEWS/0,,contentMDK:20116014~menuPK:34463~pagePK:34370~piPK:34426~theSitePK:4607,00.html>

Chile, along with the World Bank and the group of six governments and the 17 companies that make up the Prototype Carbon Fund (PCF) announced a landmark event in the fight against climate change last week. The Chacabuquito run-of-river hydropower project, high in the Chilean Andes is delivering more than electricity. The project is putting Chile into the history books with the first ever, verified greenhouse gas emission (GHG) reductions in the developing world, intended for the Clean Development Mechanism (CDM) of the Kyoto Protocol, the 1997 international agreement to limit climate altering greenhouse gases. The CDM will allow industrialized countries and companies with greenhouse gas reduction commitments, to purchase some of their required reductions, in developing countries. Chacabuquito opens a new era of possibilities for Chile and other developing countries, in which reductions in greenhouse gases are exchanged for development dollars.

The project demonstrates the potential and value of the Clean Development Mechanism as a powerful development tool for Latin America. "By selling emission reductions to developed countries, Chile is entering fully the international market of environmental cleansing. That will enable the national private sector to access resources to improve their technologies and introduce clean technologies," said Gianni López Ramirez, Executive Director, of Chile's CONAMA, the National Commission for Environment. "Throughout the world, and especially in Europe, there is growing demand for these type of emission reductions. This opens great possibilities for Chile, a country with low risk rating for investments, compared with other similar nations. Chacabuquito is the first success story."

Chile and Latin America have already demonstrated their attractiveness to the newly emerging carbon market. Thirty percent of the Prototype Carbon Fund's 2003 portfolio is located in Latin America. The driving force is the Kyoto Protocol, which commits industrialized countries to reduce their carbon emissions

by 5 percent below 1990 levels in the period from 2008 to 2012. Companies can supplement their commitments at home by purchasing lower cost emissions in developing world countries. As a result, projects in developing countries will get a new source of financing for sustainable development in the energy, industrial and waste management sectors, land rehabilitation, and clean technologies. Industrialized countries can meet part of their Kyoto obligation, while the threat of climate change is reduced at lower overall cost.

Chacabuquito is a leading example of the opportunities available through carbon finance. The project is part of the portfolio of the PCF. Six governments and 17 companies teamed up with the World Bank in 2000, and contributed \$180 million to create the PCF. It has so far purchased or plans to buy about \$110 million of greenhouse gas emission reductions from 26 projects in developing countries. "It is amazing to see how this result has been obtained by continuing and converging efforts of people all around the world, from Japanese companies to European governments and World Bank staff, and so many people here in Chile and Latin America," said Jean Claude Steffens, Chairman of the Participants' Committee of the PCF.

The carbon finance business has taken on a new sense of urgency in the face of mounting evidence that the Earth's climate is changing, which could have dire consequences for major parts of humanity. The main culprits are fossil fuels that are pumping heat trapping carbon dioxide into the Earth's atmosphere creating an invisible blanket around the planet. Climate change, and accompanying disrupted weather patterns could wreak havoc on the planet, particularly parts of the developing world. The threat climate change poses to long-term development and the ability of the poor to escape from poverty is of particular concern to the World Bank.

47) UN CLIMATE BODY DAMPENS HOPE AS REJECTS PROJECTS

Reuters

June 9, 2003

Internet: <http://www.alertnet.org/thenews/newsdesk/4542482.htm>

BONN, Germany, June 9 (Reuters) - A United Nations climate change body has held its first review of projects aimed at reducing greenhouse gas emissions around the globe -- and failed to approve a single one. "Don't expect miracles," Hans Jurgen Stehr, chairman of the executive board of the Clean Development Mechanism, told Reuters on Monday after announcing the results of the study. "In many ways these are pioneers. Many had valuable ideas," he said on the sidelines of a climate change conference in Bonn, Germany.

Under the 1997 Kyoto Protocol, richer nations are allowed to fund projects such as wind farms and solar energy parks in developing countries and get credits towards their own goals of cutting emissions of carbon dioxide and other so-called greenhouse gases blamed for global warming. Twelve projects were presented to the U.N. body. The answer on each occasion was no. The backers of three projects in Brazil, a landfill plant in South Africa, a wind farm in Jamaica and a project in South Korea will, however, be able to resubmit revised applications at the end of June. The backers in each case argued they would reduce the emissions of greenhouse gases such as carbon dioxide.

"We have to answer the question: why would this not have happened anyway," said Christine Zumkeller, coordinator of the U.N.'s cooperative mechanisms programme. A country with many fast-flowing rivers could, for example, argue it is helping the planet by building hydro-electric plants instead of burning fossil fuels, but regulators say that may not be a legitimate argument if the fossil fuel plant was not a viable alternative in the first place. The debate is likely to increase in coming years if the Kyoto Protocol takes effect and if a U.N. climate change summit in Milan in December agrees to give richer nations credits for planting trees that absorb carbon dioxide. Most industrial nations, with the notable exception of the United States, the world's largest polluter, have ratified the Kyoto Protocol, which seeks to reduce greenhouse gas emissions below 1990s levels by 2012. Under a complex weighting system, it would take effect if Russia

ratified it as it has pledged to do. Greenhouse gases are widely blamed for global warming, which threatens to raise sea levels by melting polar ice caps and to exacerbate droughts and flooding.

See Also: Executive Board considers methodologies for CDM projects, UNFCCC Secretariat, June 10, 2003; Internet: <http://unfccc.int/press/prel2003/pressrel100603.pdf>

GENERAL NEWS

48) BRITAIN FACING AN ENERGY SHORTFALL

The Scotsman

June 27, 2003

Internet: <http://www.thescotsman.co.uk/uk.cfm?id=716272003>

BRITAIN will become overwhelmingly dependent upon energy sources via pipelines from politically unstable countries in less than 20 years, a new report has warned. The State of the Nation 2003 report, published by the Institution of Civil Engineers (ICE), reveals a potential 80 per cent shortfall in meeting the country's energy demands from current supplies by 2020. Such reliance on unsecured, imported fuel supplies could have potentially "cataclysmic" effects, the report claims. Electricity generation mix in the UK is approximately 32 per cent coal, 23 per cent nuclear, 38 per cent gas, 4 per cent oil and 3 per cent others at present.

Emission constraints, under agreements such as the Kyoto Protocol, mean the UK's coal-powered generating plants will close shortly after 2016, while just one nuclear power station will remain operational beyond 2020. Under current government planning, the outstanding balance will have to be replaced by gas-fired power stations, importing 90 per cent of their fuel, no later than 2020. The ICE report claims that Britain's energy plans lack both diversity and security of supply, and calls on the government to develop a sustainable solution that incorporates all types of generation, including renewable sources such as wind and wave power, and cleaner coal and gas-fired power stations. Tom Foulkes, the director general of ICE, said: "If future gas supplies were interrupted, this country would have major difficulty in keeping the lights on.

"Britain is a long way from the major new gas fields being developed in central Asia and Africa. Can the security of the UK's gas supply be guaranteed, given that it will have to travel thousands of miles in a series of pipelines that are vulnerable to mechanical failure, sabotage and terrorist attack?" A spokesman for the Department of Trade and Industry said: "We are sure this document will make a contribution to the energy debate, but we have to take into account that we have just recently published a white paper on the back of the largest consultation on energy this country has had in the last ten years. This has given more funding to the renewables, brought climate change and renewable energy under one roof, and has addressed many of the problems quoted in the document." He added: "The government has always placed at the highest priority safety and security of supply. We do not dismiss reports like this, but it will add to the mix and will inform what we think to be a safe and sensible energy policy for the future."

49) GREENPEACE PROTESTS COAL IMPORTS FOR ELECTRICITY GENERATION

New Zealand Herald

June 23, 2003

Internet:

<http://www.nzherald.co.nz/storydisplay.cfm?storyID=3508915&thesection=news&thesubsection=general>

Greenpeace activists said today they boarded a coal ship arriving at Port Tauranga to attract public attention to the climate change debate. The 187m ship Almar was carrying the first imports of coal for Genesis' Huntly power station, to provide extra electricity this winter. Greenpeace climbers hung a banner off the side which read "Coal Cooks the Climate" and floated a line of 10 large windmills alongside the ship to

symbolise an alternative source of energy. Greenpeace is calling for the Government to redirect New Zealand's energy system away from fossil fuels and to develop an energy strategy for 100 per cent renewable energy by 2020.

Earlier this month state-owned power company Genesis Energy announced it planned to import 500,000 tonnes of coal from Australia and Indonesia. Genesis has faced criticism this winter for not ensuring it had sufficient reserves of coal on hand for the 1000 megawatt (MW) Huntly power station to make up hydro-generation shortfalls in recent months. On June 4, Genesis chief executive Murray Jackson said Genesis was working with Ports of Tauranga, Tranz Rail and Solid Energy "on putting a facility together that would enable us to supplement local coals with South Island and Indonesian coals" With a new contract for coal from Solid Energy and production from other local mines and imports from the South Island and Indonesia, Huntly power station would be supplied with about 2-1/2 million tonnes of coal per year and the energy equivalent of half a million tonnes of coal in gas supplies. Mr Jackson said this represented a significant change for the 1000-megawatt station which ran on about 70 per cent gas and 30 per cent coal "a couple of years ago". Until New Zealand's electricity generator, ECNZ, was broken up, it used to prepare for winter each year by having coal beds in opencast mines uncovered, ready for extraction. But Greenpeace climate campaigner Vanessa Atkinson said today the Government was adding to the problems of greenhouse gas emissions by planning more fossil fuels power stations as a "dry year reserve". "Where are the policies, electricity market changes and incentives to drive renewable energy development?," she said in a statement. "The answer certainly does not lie in this shipment of dirty old coal".

50) NEW TOOL FOR PUBLIC AWARENESS - INTERNATIONAL CLIMATE SYMBOL

WWF

June 2003

Internet: <http://www.saveourclimate.org>

During the SB 18 in Bonn the recently developed International Climate Symbol was presented. UNEP, Greenpeace, WWF and the Netherlands Ministry of Environment in cooperation with UNFCCC started and developed this idea wondering if worldwide communications could reinforce each other better. The analysis of this issue led towards a symbol that can be used by every non-commercial organization communicating climate change.

The symbol should become something similar to the peace symbol and the anti-nuclear symbol. In between the presentation and this moment the more than 100 registrations including about 40 downloads of organizations worldwide have taken place. The more the symbol will be used the better it will work as a common thread linking all messages on climate change worldwide.

For more information and downloading symbol: <http://www.saveourclimate.org>

EDITORIALS

51) ITALIAN PRESIDENCY: PRIORITIES FOR ENVIRONMENT AND SUSTAINABLE DEVELOPMENT

Government of Italy

July 2, 2003

Internet: <http://www.euractiv.com/cgi-bin/cgint.exe?204&OIDN=1505836&-home=home>

Environmental groups are worried that the Italian Presidency will be too lenient on environmental policies. In the presentation of its programme, the Italian Presidency announced that it will focus its work on the integration of the environment into economic development strategies, the adoption of sustainability

indicators and the monitoring of the implementation of the Kyoto Protocol on climate change.

BACKGROUND:

The Italian Presidency's environmental work programme is guided by the Joint Operational Programme for 2003 agreed together with the Greek Presidency at the end of 2002.

ISSUES:

In the presentation of its priorities for environment, the Italian Presidency expresses its will to base its work on "positive action" and voluntary agreements between public authorities and business rather than on the "system" of bans and surveillance by environmental bureaucracies. It will however have to deal with a relatively heavy environmental agenda including issues such as the long-awaited legislative package on the new chemicals policy (now expected in Autumn 2003) and climate change measures linked to the implementation of the Kyoto Protocol. To follow-up to the Johannesburg Summit, "Sustainability indicators" will be adopted.

Chemicals: the Italian Presidency will guide the discussions on the finalised chemicals draft legislation in the environment Council, in which the results of the ongoing internet consultation on the workability of the new system for registration, evaluation and authorisation of chemicals (REACH) system will be integrated. This new legislative package should be subject to intense political debate and last-minute lobbying by the industry.

Climate change: under the Italian Presidency, the Commission will present a Communication clarifying the relationship between the European emissions trading system and the other flexible mechanisms created by the Kyoto Protocol (joint development and clean development mechanisms). The preparation of COP 9, hosted by the Italian Presidency next December in Milan, will play a key role. The Italian Presidency will also launch the debate on the upcoming Commission's proposal for a regulation on the containment, reporting and marketing and use of fluorinated gases. Finally, the Presidency will work towards the final adoption of the directive on emissions trading.

EU strategy on Sustainable Development: during the Italian Presidency, sustainability indicators, aimed at integrating the environment into sectoral policies, will be adopted. Priorities will be set as regards consumption and production patterns, water, energy, chemicals, biodiversity, governance, trade/finance. The list of environmental indicators will be adopted at the meeting of the Environment Council in October and forwarded to the European Council in December. These indicators will then be applied in the annual review of the European Union's sustainable development strategy. Additionally, each Council configuration will provide the European Council with a comprehensive contribution, including measures and timetables, on the specific topics of the Johannesburg Summit implementation plan falling within its field of competence.

POSITIONS:

Eurochambres' President Christoph Leitl said: "We welcome the Italian Presidency and wish the Presidency success in the following six months which will be crucial for the European Union. After an only recently re-stabilized geopolitical situation important steps for the political and economic future of Europe have to be taken. For Chambers the utmost priority is to restore business and consumer confidence. Otherwise the ambitious target of the Lisbon agenda - which is to make Europe the most competitive and knowledge-based region of the world by 2010 - will get out of reach."

John Hontelez, Secretary-General, European Environmental Bureau (EEB), said: "The Italian Government has chosen the period of its Presidency to start a major deregulation of environmental legislation in its own country. And it has decided to sideline its own Parliament in this process. We also note that the Italian Government wants to promote "positive actions" and voluntary agreements as the recipes for Europe's environmental problems. This industry-driven agenda needs to be prevented, for the sake of public health and protection of our natural resources".

Representatives of the World Wide Fund (WWF) and Birdlife said: “We wish and hope for an Italian Presidency taking responsible care of our planet on behalf Europe, from the enforcement of the Kyoto Protocol to GMOs, from the reduction of the impact of agriculture on the environment to the new directive on chemicals. But we fear a Presidency wishing to export the Italian model of deregulating environmental protection”.

Climate Action Network Europe declared "Energy efficiency must be moved higher up in the Lisbon agenda (on EU competitiveness) and an ambitious annual reduction target for primary energy consumption has to be set. Energy conservation, efficiency and renewable energy must also be much higher up in the priorities of EU energy policy since these are currently included in the wording of the future Constitutional Treaty under the shared energy competences of the EU. Italian Environmental Associations are extremely worried that the Italian Presidency may attempt to bring environmental deregulation — described by the Italian environmental groups as an ‘environmental counter-reformation’ — to the European Union.

52) SHADOW OF EXTINCTION by George Monbiot

The Guardian

July 1, 2003

Internet: <http://www.guardian.co.uk/comment/story/0,3604,988380,00.html>

George Monbiot's book The Age of Consent: a Manifesto for a New World Order is published by Flamingo.

It is old news, I admit. Two hundred and fifty-one million years old, to be precise. But the story of what happened then, which has now been told for the first time, demands our urgent attention. Its implications are more profound than anything taking place in Iraq, or Washington, or even (and I am sorry to burst your bubble) Wimbledon. Unless we understand what happened, and act upon that intelligence, prehistory may very soon repeat itself, not as tragedy, but as catastrophe.

The events that brought the Permian period (between 286m and 251m years ago) to an end could not be clearly determined until the mapping of the key geological sequences had been completed. Until recently, palaeontologists had assumed that the changes that took place then were gradual and piecemeal. But three years ago a precise date for the end of the period was established, which enabled geologists to draw direct comparisons between the rocks laid down at that time in different parts of the world.

Having done so, they made a shattering discovery. In China, South Africa, Australia, Greenland, Russia and Svalbard, the rocks record an almost identical sequence of events, taking place not gradually, but relatively instantaneously. They show that a cataclysm caused by natural processes almost brought life on earth to an end. They also suggest that a set of human activities that threatens to replicate those processes could exert the same effect, within the lifetimes of some of those who are on earth today. As the professor of palaeontology Michael Benton records in his new book, *When Life Nearly Died*, the marine sediments deposited at the end of the Permian period record two sudden changes. The first is that the red or green or grey rock laid down in the presence of oxygen is suddenly replaced by black muds of the kind deposited when oxygen is absent. At the same time, an instant shift in the ratio of the isotopes (alternative forms) of carbon within the rocks suggests a spectacular change in the concentration of atmospheric gases.

On land, another dramatic transition has been dated to precisely the same time. In Russia and South Africa, gently deposited mudstones and limestones suddenly give way to massive dumps of pebbles and boulders. But the geological changes are minor in comparison with what happened to the animals and plants. The Permian was one of the most biologically diverse periods in the earth's history. Herbivorous reptiles the size of rhinos were hunted through forests of tree ferns and flowering trees by sabre-toothed predators. At sea, massive coral reefs accumulated, among which lived great sharks, fish of all kinds and hundreds of species of shell creatures. Then suddenly there is almost nothing. The fossil record very nearly stops dead. The reefs die instantly, and do not reappear on earth for 10 million years. All the large and medium-sized

sharks disappear, most of the shell species, and even the great majority of the toughest and most numerous organisms in the sea, the plankton. Among many classes of marine animals, the only survivors were those adapted to the near-absence of oxygen.

On land, the shift was even more severe. Plant life was almost eliminated from the earth's surface. The four-footed animals, the category to which humans belong, were nearly exterminated: so far only two fossil reptile species have been found anywhere on earth that survived the end of the Permian. The world's surface came to be dominated by just one of these, an animal a bit like a pig. It became ubiquitous because nothing else was left to compete with it or to prey upon it. Altogether, Benton shows, some 90% of the earth's species appear to have been wiped out: this represents by far the gravest of the mass extinctions. The world's "productivity" (the total mass of biological matter) collapsed.

Ecosystems recovered very slowly. No coral reefs have been found anywhere on earth in the rocks laid down over the following 10 million years. One hundred and fifty million years elapsed before the world once again became as biodiverse as in the Permian. So what happened? Some scientists have argued that the mass extinction was caused by a meteorite. But the evidence they put forward has been undermined by further studies. There is a more persuasive case for a different explanation. For many years, geologists have been aware that at some point during or after the Permian there was a series of gigantic volcanic eruptions in Siberia. The lava was dated properly for the first time in the early 1990s. We now know that the principal explosions took place 251 million years ago, precisely at the point at which life was almost extinguished. The volcanoes produced two gases: sulphur dioxide and carbon dioxide. The sulphur and other effusions caused acid rain, but would have bled from the atmosphere quite quickly. The carbon dioxide, on the other hand, would have persisted. By enhancing the greenhouse effect, it appears to have warmed the world sufficiently to have destabilised the superconcentrated frozen gas called methane hydrate, locked in sediments around the polar seas. The release of methane into the atmosphere explains the sudden shift in carbon isotopes.

Methane is an even more powerful greenhouse gas than carbon dioxide. The result of its release was runaway global warming: a rise in temperature led to changes that raised the temperature further, and so on. The warming appears, alongside the acid rain, to have killed the plants. Starvation then killed the animals. Global warming also seems to explain the geological changes. If the temperature of the surface waters near the poles increases, the circulation of marine currents slows down, which means that the ocean floor is deprived of oxygen. As the plants on land died, their roots would cease to hold together the soil and loose rock, with the result that erosion rates would have greatly increased. So how much warming took place? A sharp change in the ratio of the isotopes of oxygen permits us to reply with some precision: 6C. Benton does not make the obvious point, but another author, the climate change specialist Mark Lynas, does. Six degrees is the upper estimate produced by the UN's scientific body, the intergovernmental panel on climate change (IPCC), for global warming by 2100. A conference of some of the world's leading atmospheric scientists in Berlin last month concluded that the IPCC's model may have underestimated the problem: the upper limit, they now suggest, should range between 7 and 10 degrees. Neither model takes into account the possibility of a partial melting of the methane hydrate still present in vast quantities around the fringes of the polar seas. Suddenly, the events of a quarter of a billion years ago begin to look very topical indeed. One of the possible endings of the human story has already been told. Our principal political effort must now be to ensure that it does not become set in stone.

53) CARBON TRADING: MAKING MONEY FROM HOT AIR

Business Line

June 23, 2003

Internet: <http://www.wbcd.org/plugins/DocSearch/details.asp?type=DocDet&DocId=MTU4MA>

Other than generation of electricity, what is common between Asia Bio Energy, a waste management company set up to convert Lucknow's solid municipal waste into electricity, and a sugar mill in Karnataka

that has set up a co-generating unit? Both projects expect to generate money from hot air... or rather the lack of it!

Thanks to the Kyoto Protocol, controlling emissions of greenhouse gases (GHG) is no longer a purely expense-driven exercise. On the contrary, if structured suitably, it can be very profitable. There is now an active market for Certified Emissions Reduction (CER) in the form of GHG trading, as likely participants position themselves and get used to the mechanisms of carbon trading. For example, last year, the US power producer, AES Corp. bought \$ 3 million worth of greenhouse credits. AES bought the credits from Hungary, which built renewable biomass power plants that reduce overall carbon production. Projects generating 90 million tonnes of CER have been approved under the Clean Development Mechanism (CDM) route and almost 10 million tonnes of reductions have been approved under the Joint Implementation (JI) route, as prescribed in the Kyoto Protocol. CDM has seven projects (namely, wind power and biomass power) projects in India. Greenhouse gas trading

Using tradeable rights as means of pollution control was first suggested in 1968 by the Canadian economist, John Dale. The first emissions trading programme was set up in the US, following the Clean Air Act amendments of 1977. In subsequent years, several other emissions trading programmes were implemented in the US. Then, in December 1997, at the third conference of the United Nations Framework for Climate Control in Kyoto, governments the world over, agreed to a 5 per cent reduction in emissions of greenhouse gases by the developed countries from the levels existing in 1990 by 2008-12.

The protocol set out, for the first time, provisions for an international emissions trading system. Thus, imparting an economic value to each unit of emission reduced and in the process providing a fiscal incentive to find ways to lower the cost of emission reduction on a global basis. The difference in the marginal cost of reducing emissions among the participant is largely expected to optimise the 'returns' on investment by attracting funding to projects where there is a greater scope of emissions reduction per unit of investment.

MEETING THE COMMITMENTS

The Kyoto Protocol includes a provision that permits parties to achieve their commitments to reduce emissions "jointly with other parties" through Joint Implementation (JI) activities.

The intention being to encourage Annexure 1 (or developed) countries to participate in cooperative projects to reduce emissions of greenhouse gases in developing countries (including those countries whose economies are in transition), while encouraging sustainable development and transfer of capital, technology and services. The Protocol establishes complex rules and procedures that nations must follow in achieving their obligations, including rules for using the three 'Kyoto Mechanisms'-

- (a) International Emissions Trading (IET);
- (b) Joint Implementation (JI);
- (c) Clean Development Mechanism (CDM).

As per the protocol, the two 'commodities' that can be traded are (1) Any part of an assigned amount - the 'budget' allocated to the parties; (2) Emission Reduction Units - that may result from JI/CDM projects - and the CERs thus generated may not only be used by the acquiring party to meet its own obligations, but can also be traded.

At the end of a compliance period, a country is declared in compliance with its commitment if its emissions are below its assigned amount after adjusting for emission trading (including JIs and CDMs).

WAY FORWARD FOR DEVELOPING COUNTRIES

Looking at emissions of greenhouse gases as an issue requiring a global solution, the purpose of CDM is to assist non-Annex 1 parties in achieving sustainable development and in contributing to the ultimate objective of the Convention, while simultaneously enabling parties included in Annex 1 to achieve

compliance with their quantified emission limitation and reduction commitments. In effect, the mechanism enables parties in the developed world to directly invest in emission reduction projects in the developing. Since every commercial investment is a decision on how, when and where, the CDM can be a useful way of gaining competitive advantage for a company in a relevant business (sugar - co-generation/fuel ethanol; plantations - biomass energy). CDM projects are not just a way to receive CERs, they provide an opportunity to pursue a sustainable business model that offers a range of leading-edge competencies such as new relationships, new forms of collaborations, and new business processes used in the development of new markets and products.

ECONOMIC OPPORTUNITY FOR INDIA

With a lower marginal cost of emissions reduction (and the usual investment 'environmental' advantages), India, with its mixed bag of plant and machinery (power + industrial) in terms of old, outdated industrial and power generation equipment (in urgent need of replacement), coexisting with the latest, most modern machinery, is widely seen as a key CER supplier under the emission trading schemes, such as the Kyoto Protocol.

As per a UNCTAD publication:

- When greenhouse gases are only allowed to be abated domestically (in Annex I countries) the marginal price of a tonne of carbon dioxide in 2010 at the net present value is approximately USD 77 - with a total market value of about \$ 92 billion;
- When emissions reductions can be met through Joint Implementation or in a tradable permit market among Annex I countries, the price declines to just over \$ 37 per tonne - with a total market value estimated at \$ 44.5 billion. With 'hot-air.' Approximately \$ 9 billion in capital goes to the former Soviet Union (FSU). Under Annex I trade, Japan, the UK, the US, and several other countries spend approximately 50 per cent less as compared to the no-trade scenario;
- When non-Annex I countries participate in a global permit market, it is anticipated that the value reaches approximately \$ 30-35 billion annually as the per tonne average cost declines nearly 20 per cent - to less than \$ 30. Nearly half the capital flows to China (\$ 9.85 billion), FSU (\$ 5.47 billion), India (\$ 2.62 billion);
- If the CDM captures at least 35 per cent of an international market, the estimated value to those countries is approximately \$ 18 billion per annum. China gains \$ 8 billion, FSU \$ 4.5 billion, India \$ 2.1 billion, with most of the remaining \$ 3.2 billion going to Latin America, Africa and other non-Annex I countries.
- Being a relatively new 'commodity' there is a great deal of uncertainty regarding the price for CO2 emission reduction credits. The average price per tonne of CER for the 2000 tender by the Dutch Government was \$ 8.3, the average in the 2001 tender being \$ 4.8. The decline could partly be explained by the reluctance of the US to ratify the Protocol and/or the additional supply due to the availability of 'hot air'. However, things are looking up and the Kyoto Protocol is expected to become an international law, within the next 18 months, once Russia ratifies the Protocol.

It is expected that the emerging European carbon emissions market is set to grow by around 50 per cent this year to \$ 1.06 billion and could be worth around \$ 8.4 billion by 2007 (as indicated in a recent study by Point Carbon). Growing at a rate of almost 4 per cent per annum (almost the rate of GDP growth), India, the sixth largest producer of greenhouse gases, contributing almost 3 per cent of the world's total emission (including the methane generated due to the 'waste' generated by our cattle stock), is seen as one of the most attractive destinations for CDM-linked investments (after China).

Estimates put the cumulative FDI on account of such projects at almost \$ 2 billion - at the rate of approximately \$ 200 million per annum. CDM projects will help India in not only reducing green house gas emissions; it could help in increasing energy efficiencies of companies, making electricity accessible to remote villages (by use of micro/mini off grid generating units) and has the potential to generate significant

value. The Government seems to have realised this and, by actively promoting renewable energy, is moving in the right direction.

54) CLIMATE CHANGE ADDING STRESS TO SCARCE WATER RESOURCES: WORLD BANK RINGS ALARM ON DEVASTATING EFFECTS OF CLIMATE CHANGE ON THE POOR

World Bank

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As the world celebrates the international environment today, the World Bank takes a look at the challenges the environment is setting for development. Sea level rise, shifts of climatic zones due to increased temperatures, and changes in precipitation patterns, are already affecting millions of people living in developing countries and threatening their potential of moving out of poverty. Droughts, floods, and storms are now a recurrent phenomena throughout the world, however the impact has been most severe on poor citizens in Central America, Mozambique, China, and Bangladesh, among other developing countries. Today, water is at the top of the development agenda, and there are simple reasons for that. Water is essential for hygiene and health practices. It is important for irrigation, to ensure food security. Water is also a basic component of industry, necessary for hydropower and thus energy, and it is indispensable to maintain ecosystems and biodiversity. However, today over one billion people lack access to clean water and 2.4 billion people still live without improved sanitation. As a result of this situation, 3.5 million people die each day due to water-related diseases. The number of people affected by water scarcity is projected to rise to 5 billion by 2025.

This dire picture does not account for the potential negative impact of climate variability. In many water scarce regions, particularly in the subtropics, changes in rainfall patterns and increased evaporation as a result of short term climate variability or long-term climate change may lead to further reduction in water access. "If the international community does not take decisive action to support developing countries in mitigating the potential impacts of climate change and implementing adaptive strategies, these dramatic projections may become a reality," argues Kristalina Georgieva, Director of Environment for the World Bank. Additionally, increases in temperature and changes in precipitation are projected to accelerate the retreat and loss of glaciers, with associated negative consequences to vast areas such as the Himalayan and the Andean regions. The sea level rise associated with projected increases in temperature could displace tens of millions of people living in low-lying areas, such as the Ganges and the Nile delta, and could threaten the very existence of small island states.

World Bank research indicates that over 96 percent of disaster-related deaths, caused in part by floods and droughts in recent years, have taken place in poor countries. According to the World Bank's Robert Watson, former Chairman of the Intergovernmental Panel on Climate Change (IPCC), "Human-induced climate change adversely affects key development issues such as the quantity and quality of water, agricultural production, human health, and human settlements. In addition, climate change will decrease biological diversity, hence undermining the ecosystem goods and services needed for sustainable development, exacerbate land degradation, and increase local air pollution." Georgieva emphasized that "the key challenge is to recognize the linkages between major environmental issues – in this case, climate change and water resource availability. At the national level, we must develop mechanisms capable of integrating climate change concerns into economic planning, and simultaneously act multilaterally to move this effort forward at the global level."

She called on rich countries and donors to "work together with developing country governments and non-state actors to help integrate climate variability and climate change impacts into their overall development strategies." The World Bank has been working directly over the last decade to mitigate these risks. As an Implementing Agency of the Global Environment Facility (GEF), the Bank has assisted developing countries to achieve the climate change objective of reducing greenhouse gases (GHGs) through support for policy reforms and lending primarily for renewable energy and energy efficiency projects. The Bank is

mainstreaming the GEF into its regular operations. The total climate-change portfolio today includes 62 projects at a total cost of \$6.8 billion, with GEF financing \$578 million, and funding for the rest from the Bank, private co-funding, and government counterparts. The Bank has the largest renewable energy portfolio of any institution in the world, with renewable projects of approximately \$590 million, or about 6 percent of the Bank's total energy lending over the last 6 years.

By facilitating the carbon finance business, through the Prototype Carbon Fund (PCF), the Bank is expanding this market for developing countries. Under the Kyoto Protocol, industrialized countries can meet their greenhouse gas emission reductions through projects that generate emission reductions in developing countries and economies in transition, both mitigating climate change and promoting sustainable development. Together, with Regional Development Banks, UN agencies, and other partners at the global level, the World Bank has been working to expand and harmonize adaptation strategies to climate change into long-term development strategies.

For more information on the World Bank's work on water, please visit: <http://www.worldbank.org/water>
For more information on the Global Environment Facility, please visit: <http://gefweb.org>