

The International Institute for Sustainable Development (iisd) presents

## CLIMATE-L NEWS

ISSUE 18

October 6 - 29, 2003

Compiled by Richard Sherman <[rsherman@iisd.org](mailto:rsherman@iisd.org)>

Edited by Kimo Goree <[kimo@iisd.org](mailto:kimo@iisd.org)>

Published by the International Institute for Sustainable Development (IISD) <<http://www.iisd.org>>

**Editor's note:** Welcome to the eighteenth issue of Climate-L News, compiled by Richard Sherman <[rsherman@iisd.org](mailto:rsherman@iisd.org)>. If you should come across a news article or have a submission for the next issue, please send it directly to Richard <[rsherman@iisd.org](mailto:rsherman@iisd.org)>. CLIMATE-L News is an exclusive publication of IISD <<http://www.iisd.org>> for the CLIMATE-L <<http://iisd.ca/scripts/lyris.pl?join=climate-l>> list and should not be reposted or republished to other lists/websites without the permission of IISD (you can write Kimo <[kimo@iisd.org](mailto:kimo@iisd.org)> for permission.) If you have been forwarded this issue and would like to subscribe to CLIMATE-L, please visit <<http://iisd.ca/scripts/lyris.pl?join=climate-l>>.

Funding for the production of CLIMATE-L (part of the IISD Reporting Services annual program) has been provided by the US Department of State Bureau of Oceans and International Environmental and Scientific Affairs, The Netherlands Ministry of Foreign Affairs, the Government of Canada (through CIDA, DFAIT and Environment Canada), the Swiss Agency for Environment, Forests and Landscape (SAEFL), the United Kingdom (through the Department for International Development - DFID and Department for Environment Food and Rural Affairs - DEFRA), the European Commission (DG-ENV), the Danish Ministry of Foreign Affairs, and the Government of Germany (through the German Federal Ministry of Environment - BMU, and the German Federal Ministry of Development Cooperation - BMZ). General Support for the Bulletin during 2003 is provided by the United Nations Environment Programme (UNEP), the Government of Australia, the Ministry of Environment and the Ministry of Foreign Affairs of Sweden, the Ministry of Foreign Affairs and Trade of New Zealand, the Ministry of Foreign Affairs of Norway, Swan International, the Japanese Ministry of Environment (through the Institute for Global Environmental Strategies - IGES), the Japanese Ministry of Economy, Trade and Industry (through the Global Industrial and Social Progress Research Institute - GISPRI), and the Ministry for Environment of Iceland. If you like CLIMATE-L News, please thank them for their support.

### CONTENTS

#### KYOTO RATIFICATION

- 1) TEHRAN WEIGH JOINING KYOTO PROTOCOL, IRIB, October 29, 2003
- 2) SWEDEN CALLS FOR PRO-KYOTO OFFENSIVE ON RUSSIA, Reuters, October 24, 2003
- 3) UK JOINS GLOBAL WARMING CHALLENGE TO US AND RUSSIA, Scotsman.com, October 23, 2003
- 4) PEER URGES STRONGER RUSSIAN TIES ON CLIMATE CHANGE, Scotsman.com, October 22, 2003
- 5) RATIFY KYOTO PROTOCOL, The Asahi Shimbun, October 21, 2003
- 6) PUTIN WILL RATIFY KYOTO PROTOCOL, SAYS CHRETIEN, CTV, October 20, 2003
- 7) KYOTO VETO WILL HURT RUSSIA, SAYS U.N. CLIMATE CHIEF, Reuters, October 17, 2003
- 8) KYOTO PROTOCOL ALTERNATIVE PROPOSED, The Washington Times, October 15, 2003
- 9) RUSSIA TO SIGN KYOTO PROTOCOL? Pravda, October 14, 2003

## **CLIMATE IMPACTS**

- 10) PREPARE FOR CLIMATE CHANGE, SA TOLD, The Mercury, October 28, 2003
- 11) ARCTIC TEMPS SHOW RISE, NASA STUDY SAYS, AP, October 24, 2003
- 12) IGAD SHOULD DISCUSS WEATHER CHANGES TOO, The Monitor (Kampala), October 24, 2003
- 13) REGION WARNED, Barbados Advocate, October 22, 2003
- 14) ALASKA'S PEOPLE, POLAR BEARS, ECONOMY FEEL HEAT OF GLOBAL WARMING, Christian Science Monitor, October 7, 2003

## **CLIMATE GOVERNANCE**

- 15) THE WARMING IS GLOBAL BUT THE LEGISLATING, IN THE U.S., IS ALL LOCAL, New York Times, October 29, 2003
- 16) GLOBAL WARMING: THE QUADRILLION DOLLAR QUESTION, Reuters, October 27, 2003
- 17) TESTING THE SENATE'S METTLE, New York Times, October 27, 2003
- 18) TWELVE STATES SUE U.S. OVER UTILITY POLLUTION, Reuters, October 27, 2003
- 19) GOVT MUST DRIVE THROUGH GREEN CAR STANDARD, Yomiuri Shimbun, October 27, 2003
- 20) CUTTING GREENHOUSE GASES, OR NOT, New York Times, October 26, 2003
- 21) FORESTS MAY NOT SOAK UP AS MUCH, RESEARCH SHOWS, The Star, October 26, 2003
- 22) KYOTO PROTOCOL: COMMISSION HAILS AGREEMENT ON MONITORING GREENHOUSE GAS EMISSIONS, Europa World, October 24, 2003
- 23) UK'S BLAIR WOOES BANKS FOR EMISSIONS TRADING SCHEME, Reuters, October 24, 2003
- 24) AS SENATE DEBATES GREENHOUSE GAS CAPS, LEWIS & CLARK COLLEGE IS FIRST TO ACHIEVE KYOTO PROTOCOL COMPLIANCE, Climate Trust, October 24, 2003
- 25) INDUSTRY, OTTAWA AGREE KYOTO CARBON-TRADING PRINCIPLES, The Star, October 23, 2003
- 26) THE COALITION OF THE GLOBAL POLLUTERS, The Age, October 23, 2003
- 27) NEW PLAN TO CURB POLLUTION, Times News Network, October 22, 2003
- 28) WIDE ATTENDANCE, FOCUSED ATTENTION NEEDED FOR ISLANDS MEETING - UN OFFICIAL, UN, October 21, 2003
- 29) UN CONFERENCE ON DISASTERS OPENS WITH PLEA FOR HELP, AFP, October 16, 2003
- 30) EU-ASIA MINISTERS DISCUSS ENVIRONMENT ISSUES, EU Business, October 12, 2003
- 31) GREENHOUSE GASES: MATTEOLI, NEGOTIATE MEASURES AND PROJECTS, AGI, October 6, 2003

## **ENERGY & CLIMATE CHANGE**

- 32) SPAIN OVERTAKES U.S. FOR RENEWABLE ENERGY, ERNST & YOUNG SAYS, Bloomberg, October 29, 2003
- 33) UNEP LAUNCHES NEW INITIATIVE TO SHIFT INVESTMENT TO SUSTAINABLE ENERGY, EarthVision, October 28, 2003
- 34) NEW ENERGY TAXES FOR EUROPE, EU Politix, October 27, 2003
- 35) MINISTER FOR ENERGY VISITS THE UK, Accra Mail (Accra), October 24, 2003
- 36) INTERNATIONAL AGREEMENT SET TO PROMOTE SUSTAINABLE ENERGY, 4NI, October 23, 2003
- 37) GREENS LOSE PATIENCE WITH OIL GIANTS, The Guardian, October 23, 2003
- 38) DENMARK'S POWERFUL LESSONS FOR THE FUTURE, Scotsman.com, October 17, 2003

## **EDITORIALS**

- 39) RUSSIA NEEDS THE KYOTO TREATY by Alexey Kokorin and Peter Rutland, IHT, October 28, 2003
- 40) KYOTO PROTOCOL AND THE FUTURE OF CARBON TRADING, Financial Express, October 27, 2003

- 41) THE PLANET'S POLLUTERS SHOULD BE PUT IN THE DOCK by Michael Meacher, The Guardian, October 25, 2003
- 42) CHINA'S BOOM ADDS TO GLOBAL WARMING PROBLEM, New York Times, October 22, 2003
- 43) CLIMATE CHALLENGE: POORER NATIONS MUST HANG TOGETHER by R K Pachauri, Times of India, October 23, 2003
- 44) THE END OF THE OIL AGE, The Economist, October 23, 2003
- 45) AN UNNATURAL DISASTER by Andrew Simms, Mail & Guardian (Johannesburg), October 22, 2003
- 46) KYOTO'S NOBLE CAUSE by Margot Wallstrom, The Moscow Times, October 9, 2003

## **KYOTO RATIFICATION**

### **1) TEHRAN WEIGH JOINING KYOTO PROTOCOL**

IRIB

October 29, 2003

Internet: [http://www.iribnews.com/Full\\_en.asp?news\\_id=191301&n=32](http://www.iribnews.com/Full_en.asp?news_id=191301&n=32)

Tehran, Oct 29 - A two-day workshop aimed at addressing the challenges and opportunities of the Kyoto protocol and potential implications of climate change for Iran concluded in Tehran on Sunday, said a press release issued here on Tuesday by the United Nations Development Program (UNDP) Tehran office. It added that the workshop supported by UNDP and jointly organized by the Department of Environment (DOE) and Iran's Fuel Conservation Organization (IFCO) affiliated to the Ministry of Oil brought in almost 200 officials and energy and environment experts from the UN Department of Economic and Social Affairs (UNDESA).

"The workshop has offered an excellent opportunity to address the link between Iran's domestic programs and international efforts to achieve sustainable development through the Kyoto protocol and its market-based approach, the clean development mechanism," said senior energy expert Roger Raufer from New York-based UNDESA. "Iran and other OPEC members have not ratified the Kyoto protocol primarily because of concerns about its adverse effects on crude oil exports." But the protocol also has market-oriented provisions such as the clean development mechanism which would encourage international investment in energy efficiency and renewable energy within developing countries," it added.

According to the report, the event was designed to update participants' knowledge and understanding of the Kyoto protocol, which is intended to mitigate the impact of climate change by reducing greenhouse gas emissions from cars, power plants, refineries and other sources. The report said that the protocol has so far been ratified by 119 states around the world. The workshop also highlighted the distinct role of Iran in the multilateral negotiations and scientific analysis related to climate change. "FICO and the DOE in cooperation with UNDP and UNDESA are also analyzing the costs and benefits of Iran's potential ratification of the protocol from a sustainable development perspective." "It is expected that the findings and outcomes of the project will provide important inputs for Iranian policy-makers as they consider the ratification of the Kyoto protocol," concluded the report.

### **2) SWEDEN CALLS FOR PRO-KYOTO OFFENSIVE ON RUSSIA**

Reuters

October 24, 2003

Internet: <http://www.alertnet.org/thenews/newsdesk/L24639275.htm>

STOCKHOLM, Oct 24 (Reuters) - Sweden called on supporters of the Kyoto protocol on curbing global warming on Friday to join forces to persuade Russia to endorse the pact that will collapse without Moscow's support. "We believe we are in a critical stage that requires a renewed offensive from the EU side," Environment Minister Lena Sommestad told a news conference ahead of a European Union environment ministers' meeting in Luxembourg next week. "We need to sit together with other countries that have

ratified the Kyoto agreement, like Canada, Norway, Japan, and discuss what we can do to get the Russians to ratify. It is important is to have other players as well," Sommerstad said.

Last month, Russian President Vladimir Putin backed away from Moscow's previous pledges to ratify the 1997 pact soon, saying he needed more time to decide. He wondered aloud if Russia's farms might even benefit from a warmer world. The protocol will collapse without Russia because it needs countries accounting for 55 percent of developed nations' emissions of gases like carbon dioxide from car exhausts and factories to sign up. Kyoto has so far reached 44 percent. Russia accounts for 17 percent and is vital for Kyoto because the world's biggest polluter, the United States, pulled out its 36 percent in 2001. "We are disappointed with Russia," Sommerstad said. "If Russia does not ratify, we have to find other forms of cooperation. Those countries that have ratified the agreement should have a discussion in the coming years about how we can go ahead."

### **3) UK JOINS GLOBAL WARMING CHALLENGE TO US AND RUSSIA**

Scotsman.com

October 23, 2003

Internet: <http://www.news.scotsman.com/latest.cfm?id=2089445>

Britain today joined forces with France and Germany to issue a challenge to the US and Russia over global warming. Environment ministers of the EU's "big three" nations – including the UK's Margaret Beckett – issued a joint declaration stating that climate change was a "real problem" which had been convincingly shown to result from human activities and urging other nations to back the Kyoto Protocol. They painted a nightmare picture of increasingly frequent droughts and floods if urgent action was not taken to reduce emissions of greenhouse gases.

Mrs Beckett and her French and German counterparts Roselyne Bachelot-Narquin and Jurgen Trittin made a direct call to Russia to ratify the protocol, to allow it to be implemented worldwide. Although they did not name the US in the statement, it was effectively a challenge to President George Bush, who has said he will not ratify Kyoto because he does not believe there is conclusive proof that use of fossil fuel is to blame for a global increase in extreme weather. An Environment Department source said the ministers were agreed "the American position that there is any doubt that human activity has contributed significantly to climate change is not credible".

Some 118 countries – including the UK – and the EU have ratified the protocol, which was adopted by the United Nations in 1997. For it to be implemented, it must be ratified by countries responsible for 55% of the 1990 global output of carbon dioxide – a threshold which can be reached only if either Russia or the US sign up. Today's statement was agreed when the ministers met in London for the launch of a renewable energy and energy efficiency partnership. It came after a summer of virtually unprecedented heatwaves across Europe, which caused widespread crop failures and tens of thousands of deaths.

The ministers said: "Climate change is a real problem. Over the last few years, we have begun to experience more extreme climatic phenomena. "This summer, parts of Europe faced an exceptional heat wave and drought that caused deaths and illness among older age groups, heat stress to livestock, forest fires and damage to crops. "The scientific community has gathered convincing evidence that most of the warming observed over the last 50 years is attributable to human activities. "Extreme events, such as heat waves or heavy precipitation, will be more frequent, more intense. What we experienced this summer is effectively an illustration of what we are likely to see more frequently in the not too distant future. "The international community needs to act with determination to deal with this problem." Kyoto was the only existing international framework for tackling the challenge of climate change, the ministers said. "There is no credible alternative to it on the table," they said. "We call upon Russia to ratify the Kyoto Protocol." Sources close to the ministers said they had directed their appeal to Moscow, rather than Washington, because Russia has not yet said it will not ratify Kyoto and is seen as more likely to move.

#### **4) PEER URGES STRONGER RUSSIAN TIES ON CLIMATE CHANGE**

Scotsman.com

October 22, 2003

Internet: <http://www.news.scotsman.com/latest.cfm?id=2083035>

The UK should develop stronger scientific links with the Russians as pressure grows for action on climate change, a leading scientist and Labour peer said today. Lord Hunt of Chesterton, chairman of the Advisory Committee on the Protection of the Sea, made his plea at a Westminster news conference to launch a project aimed at cleaning up pollution hot spots in the Arctic. Lord Hunt said it was his view that "more should be done" to forge contact with the Russians in this area. But he believed the problem was a question of attitude towards climate change among the Russian scientific community.

Russia is being urged to ratify the Kyoto Protocol, brokered by Deputy Prime Minister John Prescott in 1997, which for the first time commits countries to legally binding limits on greenhouse gas emissions, the chief cause of climate change. But its chances of success in slowing down the process is limited without Russian backing. The crucial role of the Arctic in global weather patterns is now under scrutiny along with the problem of industrial pollution in the region. Lord Hunt said: "We had a very interesting discussion when we were preparing this programme, with the Russian Academy of Sciences. "The conversation that we had was quite similar to ones I have had with geologists in the United States or even geologists in France. "There is a geological view of climate change, which is that we are going to be having another Ice Age soon and what are we worrying about? "It's a question of timescales and this historical view of climate is a very dominant view in Russian academic circles. "This isn't political, it's a Russian academic view.

"They have been less persuaded by the big climate change predictions which have actually dominated the Intergovernmental Panel on Climate Change. "So there is an academic element and it's not cynical. It's genuinely a scientific view. "Our view is that we should be engaged, we should talk to them and make sure there is a clear monitoring of the permafrost and these processes." Lord Hunt added that he has asked the Government questions in the House of Lords on the need to have good scientific links between the UK and Russia because they "are very weak". "The amount of scientific exchange is minuscule. We want them (the Russians) to join the Kyoto Protocol and, if I may say so personally, more should be done," said Lord Hunt. Klaus Toepfer, executive director of the United Nations Environment Programme, told the news conference that Russian President Vladimir Putin "is well aware of that activity (melting permafrost) and we are all underlining again that, with regard to climate change, there are no winners, there are only losers."

#### **5) RATIFY KYOTO PROTOCOL**

The Asahi Shimbun

October 21, 2003

Internet: <http://www.asahi.com/english/opinion/TKY200310220106.html>

Russia, which holds the key to implementation of the Kyoto Protocol, is waffling on ratification, dimming chances of the treaty to combat global warming coming into effect this autumn as expected. The 1997 treaty on greenhouse gas emissions reduction will take effect only when the total carbon dioxide emissions from ratifying countries that exceed 55 percent of all emissions of all industrialized nations. The United States is not part of the pact, but the CO2 emissions from the nations that have already endorsed it, including Japan, have reached 44 percent of the target. Russia's ratification would put the Kyoto Protocol into effect.

As it became clear during the World Climate Change Conference last month in Moscow, however, Russia is stalling. President Vladimir Putin said he will make the final decision after considering Russia's national interests and studying the related issues. Moscow should put aside its concern about short-term benefits and ratify the agreement soon. Russia is only wavering because the pact is not likely to generate as much money from emissions credits as initially expected. Russia has a generous surplus of unused emissions credits as a result of economic stagnation. It originally planned to sell the credits at a hefty profit to countries that are already above quota.

When Washington backed out of the Kyoto Protocol in 2001, the market's biggest potential buyer of emissions quota credits was out of play, which will keep prices of the credits down. That has aroused opposition to early ratification within the Russian government, even though proponents note doing so would help encourage foreign investment in energy-efficient Russian industries. Russia's biggest export sector, the oil industry, worries that the Kyoto Protocol would curb oil consumption, thereby depressing oil prices. Some Russians are also betting that a delay in their country's ratification could help lift the prices of emissions permits. Others advocate using Moscow's pivotal position on adoption of the Kyoto Protocol as a bargaining chip in negotiations for its admission to the World Trade Organization.

The lower house of Russia's parliament is to have an election in December, followed by a presidential election in March. The political circumstances are believed to have led Putin to decide to put off the politically sensitive Kyoto Protocol decision. But time is running short, with the approach of the 2008 deadline for achieving the accord's emissions goals. Further delays by Russia will leave other countries little time to take the steps necessary to curb their own greenhouse gas emissions. We are alarmed to note there is growing support, especially within the United States, for the view that the Kyoto Protocol doesn't work and should be superseded by a new framework. In Japan, too, there is skepticism, especially among business leaders, who see the emissions targets as too restricting. But it would be unfair for Japan to complain now about its commitments. When the United States opted out of the Kyoto Protocol treaty two years ago, it would have become a lost cause without Japan's endorsement. Tokyo used its position to horse-trade with other countries and succeeded in obtaining more "offsets" it can claim through the effect of forests that absorb and limit CO<sub>2</sub>. Japan's emission-reduction target has been reduced sharply because of that.

Now, Japan needs to work with European nations to persuade Russia to quickly ratify the pact, while encouraging ways to curb greenhouse gas emissions at home to be sure to achieve its target. If leading countries pursue emissions reductions, Russia will eventually realize it gains nothing by procrastination. The international effort to help our embattled planet requires quick action on the framework to curb global warming, thus putting pressure on the United States, a major source of CO<sub>2</sub> emissions, to return to the Kyoto Protocol.

## **6) PUTIN WILL RATIFY KYOTO PROTOCOL, SAYS CHRETIEN**

CTV

October 20, 2003

Internet: [http://www.ctv.ca/servlet/ArticleNews/story/CTVNews/1066649789506\\_131/?hub=TopStories](http://www.ctv.ca/servlet/ArticleNews/story/CTVNews/1066649789506_131/?hub=TopStories)

BANGKOK — After weeks of hinting that his country might not agree to the terms of the Kyoto accord, Russian President Vladimir Putin told Prime Minister Jean Chretien in a one-on-one meeting Monday that he does plan to ratify the global treaty for climate change. "He (Putin) said to me that he intended to implement Kyoto," Chretien told Canadian journalists gathered here at the Asia-Pacific summit. "He has some negotiation going on at this time on some elements of it. But it is the intention of his government to implement Kyoto," Chretien said.

A senior Canadian official, who spoke on condition of anonymity, later confirmed that Chretien meant to say Putin pledged to "ratify" the accord. "I don't think he suggested it would happen within weeks or months but he didn't say it was a matter of years either," the official said, adding that "Russia is indispensable" to the future of the pact. Putin reportedly expressed concern that he first must get the decision through the Duma, Russia's lower house of parliament. He also said meeting greenhouse gas targets is a daunting challenge for countries poorer than Canada. Significantly more money would be needed to transform Soviet-era industries so that they would conform to the requirements of the treaty, Putin said.

Earlier this month, Russia appeared to be backing away from the international treaty on greenhouse gases. Such a move would have been a considerable blow to the deal. Putin's economic adviser stirred up a gathering of global climate experts in Moscow three weeks ago by questioning the value of Kyoto and saying the pact to curb greenhouse-gas emissions appeared too costly and inefficient. Putin further disappointed the pact's European and UN backers by adding his cabinet had not yet decided on ratification.

The Kyoto Protocol calls for countries to reduce their level of greenhouse-gas emissions to 1990 levels by 2012. If a country exceeds the emissions level, it could be forced to cut back industrial production. To come into force, the 1997 protocol must be ratified by no fewer than 55 countries, accounting for at least 55 per cent of global emissions in 1990. Since the United States rejected the treaty, the minimum can be reached only with Russia's ratification.

Environment Minister David Anderson has said that Canada, which has already ratified the pact, will implement the protocol even if Russia backs out and leaves it with no real force. Russia's emissions have fallen by 32 per cent since 1990, largely due to the post-Soviet industrial meltdown, but the levels have started to rise again amid an economic revival. Carbon dioxide is the most common greenhouse gas. Proponents of the protocol say any failure to quickly put it into force would trigger a dangerous, steep rise in greenhouse gas concentrations that would be far more difficult to control in the future. They also pointed at economic benefits Russia could reap from the agreement by attracting vital foreign investment in its energy sector.

## **7) KYOTO VETO WILL HURT RUSSIA, SAYS U.N. CLIMATE CHIEF**

Reuters

October 17, 2003

Internet: [http://www.enn.com/news/2003-10-17/s\\_9519.asp](http://www.enn.com/news/2003-10-17/s_9519.asp)

OSLO, Norway — The head of the U.N. climate panel called on Moscow Thursday not to veto the Kyoto Protocol, saying it was wrong to assume global warming could help Russia and warning it would suffer politically if it killed the pact. "I don't think a negative decision on Kyoto would be in Russia's interest overall," said Rajendra Pachauri, the chairman of the U.N.'s Intergovernmental Panel on Climate Change. President Vladimir Putin backed away last month from Russian promises to ratify soon the 1997 Kyoto Protocol limiting emissions of greenhouse gases, saying he was undecided about its benefits. He joked that rising temperatures might save Russians money on fur coats. "Simplistic assumptions that climate change would help Russian agriculture and make that extremely cold country warmer are scientifically erroneous," Pachauri said. "The impacts of climate change on Russia could be quite complex."

Some Russian scientists reckon a warmer climate might aid farming by extending growing areas northwards, but others say rainfall might decrease in vital southern crop-growing regions and that the country could suffer more droughts and floods. The Kyoto Protocol — which aims to limit emissions of greenhouse gases like carbon dioxide from cars and factories that are blamed for rising temperatures — will collapse without Russian support. The United States pulled out in 2001. Pachauri called on Russia to join 119 other nations that have ratified Kyoto as a first step to reining in climate change, ranging from rising sea levels to more powerful storms. And he said a "Yes" could help Moscow regain political influence it lost with the collapse of the Soviet Union in 1991.

"Russia is a large country with a rich history and has ambitions to emerge once again as a global power," he said. "It cannot, therefore, gain in standing politically if it does not join hands with other countries in doing what is required to mitigate the emissions of greenhouse gases." Kyoto, a tiny first step toward reining in climate change, will only enter into force if nations accounting for 55 percent of the developed world's emissions sign up. So far, ratification has reached 44 percent. Russia has a 17 percent stake and the United States 36 percent. President Bush pulled out, arguing that Kyoto was too costly and wrongly excluded developing nations. Under Kyoto, overall carbon dioxide emissions have to be cut to 5.2 percent below 1990 levels by 2008-12. Russia might be able to sell spare quotas because the collapse of smokestack Soviet industries has sharply cut its emissions.

Pachauri said Russia would have "enormous opportunities for energy-efficiency improvements, which could earn large sums of money through joint implementation projects and emissions trading for a long time to come." Monday, a Russian presidential administration source said that Russia's indecision was because of serious worries about Kyoto and was not brinkmanship to win more cash after the U.S. pullout undermined

demand for Russia's excess quotas. Pachauri said that a Russian decision on Kyoto might now have to wait until after parliamentary elections in December.

## **8) KYOTO PROTOCOL ALTERNATIVE PROPOSED**

The Washington Times

October 15, 2003

Internet: <http://washingtontimes.com/upi-breaking/20031015-033424-9812r.htm>

NEW YORK, Oct. 15 (UPI) -- A new scientific study suggests a global treaty focusing on intercontinental air pollution could be more effective than the controversial Kyoto Protocol. Researchers say by cooperating to reduce pollutants such as ozone and aerosols, countries could address their own regional health concerns, keep their downwind neighbors happy and reduce the threat of global warming in the process.

The report appears in the current edition of Environmental Science & Technology, a peer-reviewed journal of the American Chemical Society, the world's largest scientific society. The Kyoto Protocol, drafted in 1997, was designed to provide binding commitments for reducing national emissions of greenhouse gases, especially carbon dioxide. But some nations, such as the United States and China, have been reluctant to fully adopt the standards because of their potential economic burden. Now researchers from Columbia, Harvard and Princeton universities acknowledge the need to regulate carbon dioxide emissions, but they suggest an international treaty dealing with air pollutants could be a better first step, uniting the interests of all countries involved.

## **9) RUSSIA TO SIGN KYOTO PROTOCOL?**

Pravda

October 14, 2003

Internet: <http://newsfromrussia.com/main/2003/10/14/50501.html>

Not only a feasibility study but also ample scientific proofs of global warming of the climate are required for ratification of the Kyoto Protocol, a spokesman for the Kremlin administration said on Tuesday. There is no single opinion in world science on the human factor in the global warming of the climate, he said. It has also been proved that increasing emissions of carbon dioxide, or the hothouse gases, are the reason for the climatic changes. "These issues are no joke or formality. Answers to such questions are very important for Russia's ratification of the Kyoto Protocol," the Kremlin spokesman said.

Such questions and the possible costs to be incurred by the Russian economy in case of ratification are not accidental. They were discussed way back at the 2001 meeting of the G8 leaders. This is why the Russian president has proposed to climatology specialists worldwide to gather in Moscow for the World Conference on Climate Change. "Putin invited them in the hope that international experts can provide an answer to these questions. So far, no answers have been received," said the source. "The Russian government is studying the Kyoto Protocol and possible effects of its ratification. A decision will be taken after the study is over," emphasized the Kremlin spokesman.

## **CLIMATE IMPACTS**

### **10) PREPARE FOR CLIMATE CHANGE, SA TOLD**

The Mercury

October 28, 2003

Internet: <http://www.themercury.co.za/index.php?fSectionId=283&fArticleId=270343>

Cape Town: South Africa needs to make important policy decisions to lessen the economic, social and environmental impacts of climate change in this country. Bob Scholes of the Council for Scientific and Industrial Research, who delivered the keynote address at the SA Global Change Symposium in Cape Town

yesterday, said that the Intergovernmental Panel on Climate Change (IPCC), which is made up of thousands of scientists, had established that the world's climate was changing because of human activity.

"We're now committed to global climate change and the effects will continue for millennia. What the debate is centred on now is the extent of climate change. It could be three times or 10 times as much as we've already seen," Scholes said. "At a global level, mitigating measures are being taken very seriously. South Africa needs to be looking at mitigating measures, too. We have some of the top climate change scientists, but their work is not being translated into policy. Climate change issues are not high on the national agenda."

Scholes, who is on the IPCC, said that the average global temperature had increased by 0.6C in the last 150 years. In the next century, he said, the minimum amount the Earth's temperature was likely to increase by was 1.8C and the maximum 5.6C. "That's this century. If it rises to 3C by the end of this century, then it will go to 6C by the end of the next century," Scholes said. The sea level, he said, would rise by 0.5m in the next 50 years. The polar ice-caps and the oceans had an enormous ability to absorb energy, which meant that the world's climate would carry on changing long after human activities had ceased to cause climatic change.

Scholes said that the vulnerability of regions to climatic change varied enormously. Those countries best able to cope with the effects were the wealthy nations, which had money and technology to help withstand some of the impacts. Africa was one region, he said, that would be hard hit. "The developing world could be powerful in the international negotiations because of their numbers, but they lack strong leadership. The rest of Africa is looking to South Africa for leadership, but so far it hasn't come. "In the next five years South Africa is going to have to make some decisions to mitigate against climate change, for example in agricultural adaptation and in managing water resources," he said.

South Africa would also need to make decisions about where their electricity would come from. "That decision has implications for the next 50 years," Scholes warned. "Do we stay with coal, and, if so, do we invest in clean coal? "How do we mix gas into that? Do we take renewables seriously? "These decisions have huge consequences for climate and for national competitiveness," he said.

## **11) ARCTIC TEMPS SHOW RISE, NASA STUDY SAYS**

AP

October 24, 2003

Internet: [http://story.news.yahoo.com/news?tmpl=story&u=/ap/20031025/ap\\_on\\_sc/arctic\\_warming\\_6](http://story.news.yahoo.com/news?tmpl=story&u=/ap/20031025/ap_on_sc/arctic_warming_6)

NEW YORK - New evidence of a rise in Arctic temperatures may be a further warning sign of global warming, according to a NASA study to be published next month. The study — which used satellite images taken from space — found that most of the Arctic warmed significantly over the last 10 years, rising 1.08 degrees per decade. The biggest temperature increases occurred in North America, with an increase of 1.9 degrees in 10 years. "The warming rate is quiet high compared to what we observed previously," Dr. Josefino C. Comiso, the study's author, told APTN. Comiso, the senior research scientist at NASA's Goddard Space Flight Center, said the study looked at surface temperatures taken from satellites between 1981 to 2001.

Last year, another NASA study found that sea ice in the Arctic was declining at a rate of 9 percent per decade. That study also found that in 2002, summer sea ice hit record low levels. Scientists fear that these trends are a result of greenhouse gas buildup in the atmosphere. According to NASA's new study, the rate of warming in the Arctic over the last 20 years is eight times the rate of warming over the last 100 years. The new study also found that temperature trend varied by region and season. While warming was prevalent over most of the Arctic, some areas, such as Greenland, appear to cool. However, warming trends may still affect ocean processes, said Michael Steele, senior oceanographer at the University of Washington. Water absorbs the sun's energy rather than reflecting it into the atmosphere the way ice does. As the oceans warm and ice thins, more solar energy is absorbed by the water, creating further melting, said Steele.

This changes the temperature of ocean layers and marine habitats, he said. The new Arctic warming study, to appear in the November issue of the American Meteorological Society's Journal of Climate, was conducted to record Arctic changes and develop a better understanding of climate worldwide. The surface temperature records were obtained through thermal infrared data from National Oceanic and Atmospheric Administration satellites.

For more information:

<http://www.gsfc.nasa.gov/topstory/2003/1023esuice.html>  
<http://www.earth.nasa.gov>

## **12) IGAD SHOULD DISCUSS WEATHER CHANGES TOO**

The Monitor (Kampala)

October 24, 2003

Internet: <http://allafrica.com/stories/200310240043.html>

A summit of the Inter-Governmental Authority on Development (IGAD) opens in Kampala today where the seven-member countries are expected to discuss various matters of a bilateral nature. Chief Justice Benjamin Odoki inspects a guard of honour mounted by men and women of the Uganda Police Force at the opening of the law year in 2002. Corruption is dealt with firmly in the Judiciary. The hope is that the delegates will find the time to include the issue of our changing weather on the agenda. The Meteorological Department has predicted that as a result of global warming, temperatures will continue to rise for the foreseeable future. Global warming is an urgent matter that threatens to dramatically alter weather patterns, and in so doing has the potential to turn the world economy upside down. This year alone in Uganda we have had the most erratic seasons with the rain falling when it should not and the temperatures getting intolerably hotter.

These changes have been blamed on the emission of gases that have depleted the Ozone layer, the earth's only defence against direct attack from the sun's rays. These gases are emitted from factories, vehicles and even fridges. In a word, uncontrolled pollution of our air is to blame. Unfortunately, rich countries like America have refused to respect the articles of the United Nations Framework Convention on Climate Change, that was comprehensively captured in the Kyoto Protocol, whose goal was to commit nations to controlling their pollution. But we in the East African region can still do something in our own small way. IGAD can, for instance, agree to maintain certain minimum levels of pollution to be enforced by the individual member countries.

As climate expert Mr Stephen Magezi said, poor countries like Uganda will be worst hit by the climate change because our economies are already too small to mitigate the impact of global warming. If IGAD's members come together and agree on the said minimum standards there is an outside chance that we will contribute to world efforts to do something about this threat. The little resources we have must not be adversely expended on paying for the consequences of global warming, especially in as far as our agricultural production, the mainstay of the country, is concerned.

## **13) REGION WARNED**

Barbados Advocate

October 22, 2003

Internet: <http://www.barbadosadvocate.com/NewViewNewsleft.cfm?Record=15296>

An expert on climate change, Dr. Ulric Trotz warned that Caribbean nations needed to implement two important measures to protect themselves from global warming: adaptation to the problem, and innovation. Dr. Trotz explained that the Caribbean collectively contributes much less than one per cent of the greenhouse gases in the world. He pointed out however, that the developed nations create 75 per cent of worldwide greenhouse gases, and they remain unwilling to fully commit themselves to correcting the problem, and were not living up to their moral responsibility to solve it. Trotz, who has a PhD in Organic

Chemistry, and was recently inducted as an Honorary Distinguished Fellow of UWI, said major polluters like the United States of America (USA) and Russia, have declined to sign on to the Kyoto Protocol. This treaty strives to reduce concentration of greenhouse gases to 5.2 per cent of 1990 levels.

Speaking at the University of the West Indies (UWI), School of Continuing Studies, lunchtime lecture series, Trotz suggested that Caribbean nations should implement sound policies at home. "We have to look at ourselves as developing nations and to dig deep, and to basically realise that a lot of this we will have to implement on our own. We have to find innovative ways to approach, we can't depend on handouts from the North for ever." Several serious effects are expected from changes in the global climate. These include sea level rise and coastal flooding, as well as salt water seeping into ground wells, changes in weather patterns, an increase in the frequency and severity of thunderstorms, rises in cases of malaria, and reef destruction. "The prediction for the Caribbean is that you're going to get wetter dry seasons and drier rainy seasons." However, overall there is going to be less rainfall. Dr. Trotz hinted that a higher incidence of drought would be something that countries like Antigua and Barbados would have to be very worried about, since most of the water is from ground water. Trotz said that experts predicted a rise in the sea level by eleven, to 77 cm by the year 2100. And that there are predictions that temperatures will rise between 1.4° to 5.8° C by the year 2100.

He recommended several ways for the region to adapt to the challenges caused by global warming. These included conservation, a move to renewable energy, setting buildings further away from high water marks (setback), updating building codes, and protecting reefs, mangroves, and beaches. Trotz also insisted that the region needed to use its collective bargaining power. He said the Caribbean "needs to continue vigorous negotiations at the international fora to get the implementation, full implementation of ... the Kyoto protocol." He called for the industrialised countries to adopt a lifestyle change, in order to reduce their contribution to global warming. He also said that they should provide the technology that the Caribbean needed to adapt to the coming changes because the industrialised states were mostly responsible for the gradual heating that the world had been experiencing since 1860. "We at the global level will like to see a greater commitment by the industrialised countries to provide resources to our countries for adaptation."

Finally Trotz said that the region was recently preparing for a Barbados Plus Ten conference to be held in Mauritius, as a follow up to the 1994 Small Island Developing States on sustainable development. He said that "precious little" has been done to implement the Barbados Programme of Action (BPOA) which came out of the Barbados Conference.

#### **14) ALASKA'S PEOPLE, POLAR BEARS, ECONOMY FEEL HEAT OF GLOBAL WARMING**

Christian Science Monitor

October 7, 2003

Internet:

[http://story.news.yahoo.com/news?tmpl=story&u=/oneworld/20031007/w1\\_oneworld/4536697661065527760](http://story.news.yahoo.com/news?tmpl=story&u=/oneworld/20031007/w1_oneworld/4536697661065527760)

HOMER, ALASKA, Oct. 7 (CSM) — Overlooking the snowcapped mountains and tidewater glaciers around Kachemak Bay, this hamlet of fishermen, artists, and tourists seems the picture of Alaskan charm. But beneath the scene of plenty is a landscape parched. Three hot summers have dried local wells and forced the native village of Nanwalek to shuttle in bottled water and ration it. Swaths of spruce forest around Homer and the Kenai Peninsula are brown because of an unprecedented beetle infestation, linked to the warming climate. And snow levels have diminished steadily since 1938.

While much of the world knows global warming as a phrase, Alaska's warming climate is far more palpable. Summers here, as elsewhere, have been warmer and longer; winters are more temperate, with average temperatures climbing eight degrees Fahrenheit in three decades. Alaskans have mowed their lawns in November, golfed in February, and basked in record in record temperatures all summer. "The most positive comments come from the more longtime Alaskans. They say, 'Heck, we've been through lots of tough

winters. We deserve an easy one," says Jackie Purcell, meteorologist and weather anchor for Anchorage TV station KTUU.

Computer simulations of climate change have long suggested global warming's effects would be most pronounced at the poles. Researchers have tried to gauge the impact of the climate system's natural variations, and see if they can account for change over the last few decades. However, most of the warming in Alaska is not due to these natural variations, says Michael Wallace, an atmospheric scientist at the University of Washington. Environmental changes in Alaska "suggest that global warming is playing a role." The world should take note, adds Gunter Weller, executive director of the University of Alaska's Center for Global Change and Arctic System Research: "We are the canary in the mine shaft." Indeed, melting Alaskan glaciers are shedding twice as much ice as in previous decades. And the Arctic ice pack has thinned by 40 percent since the 1960s. "There's no greater threat to Alaska's ecosystem and indigenous cultures than global warming. Period," says Deborah Williams, executive director of the Alaska Conservation Foundation.

Global warming is believed to be the result of rising amounts of carbon dioxide and other "greenhouse" gases in the atmosphere. These trap the earth's radiant heat, creating a greenhouse effect. The effects are more dramatic here because of the temperature-sensitive overlay of permafrost and glaciers. Thawing permafrost plagues highway crews and operators of the Trans-Alaska Pipeline, which depends on supports to avoid sinking into the tundra. The oil industry has lost half its exploration season to the warmth, which keeps the tundra soft--and unable to support heavy vehicles or drilling equipment--for longer stretches of time. Large sections of northern forests are collapsing into swamps of melting permafrost; sections of shoreline on the Arctic Coast have thawed, making them vulnerable to storms; and the Arctic's largest ice shelf, solid for 3,000 years, broke up last month due to warmer temperatures - though scientists were hesitant to blame global warming specifically. "It's more than just mechanical erosion. It's melting of the soil. You can get big collapses of beach bluffs," says Craig George, a biologist with the North Slope Borough.

In rural villages, too, thawing permafrost wreaks havoc: Two Inupiat Eskimo villages on the northwestern coastline, Shishmaref and Kivalina, have lost so much ground they're in danger of washing into the sea. The villages are planning to relocate, at a cost of hundreds of millions. Animals, meanwhile, are dealing with the retreating ice pack. With less time to escape from land in the spring, they sometimes wind up stranded on the outskirts of towns like Barrow. Polar bears have grown thinner in recent years, and some have to be killed as more migrate south. And the warming may have dire consequences for salmon in the Yukon River, the major food and income source for indigenous people along the 2,300-mile waterway.

Rivers have heated five degrees in 20 years, making mid-summer temperatures nearly lethal for salmon, says Richard Kocan of the University of Washington's School of Aquatic and Fisheries Science. With warmth comes increased infection by a parasite that seems to wipe out their reproductive abilities. And because the taste and texture of the meat has changed, fishermen harvest 150 salmon to get 100 usable fish, straining runs, Dr. Kocan says: "They don't feel right. They don't taste right. You can't sell them." The economic toll alone, say some, should focus attention on Alaska. Disruptions to oil and fishing industries would damage the nation's economy, Dr. Weller points out, and the cost of rebuilding roads, airports and entire towns is staggering. Still, he says, "It hasn't been enough to convince the political system that something has to be done."

The state has launched a study to reevaluate regulations on tundra travel, which oil companies claim are too strict. And Gov. Frank Murkowski (R) is pushing for a permanent gravel highway on the western North Slope to take the place of the temporary ice roads that the oil industry has touted as environmentally friendly. "You and I know that ice roads work, but it seems like winters are coming later and breaking earlier," the governor told a pro-development group earlier this year. But a North Slope road is little consolation for regular motorists, who may soon face new woes: frequent floods on major highways over the next 10 to 15 years as newly thawed soil clogs bridges and culverts, scientists say. The problem is most pronounced in the interior, where highways run through discontinuous permafrost and along shrinking glaciers.

State officials have warned that warmer winters will increase freeze-thaw cycles for mountain snowpack. That means Alaskans should expect more frequent avalanches, like the deadly snow slide that rumbled into a neighborhood in the Prince William Sound town of Cordova in 2000. For native people--17 percent of Alaskans--who depend on berries and wild foods, global warming is a particular threat. The natural world "is our classroom," says Sterling Gologergen, an environmental specialist with the Nome-based Norton Sound Health Corp. But in her region of Alaska, traditional whaling schedules have been disrupted by an earlier bowhead migration. Walrus hunters must travel farther, at greater risk, to find animals at the ice edge. Beavers, previously unknown in the region, are showing up in local streams, and their dams could interfere with water quality and fish runs. Drastic changes in vegetation mean her mother in Savoonga, on the Bering Sea island of Gambell, must walk farther to find the plants she gathers in summer. The result could be a shift in diet--and intangible losses. "I have a grandson and he's 4," says Ms. Gologergen. "What if I don't get to show or do things I did with my kids?"

## CLIMATE GOVERNANCE

### 15) THE WARMING IS GLOBAL BUT THE LEGISLATING, IN THE U.S., IS ALL LOCAL

New York Times

October 29, 2003

Internet:

<http://www.nytimes.com/2003/10/29/national/29CLIM.html?pagewanted=2&ei=5062&en=bf070bbd07a049dc&ex=1068008400&partner=GOOGLE>

WASHINGTON, Oct. 28 — Motivated by environmental and economic concerns, states have become the driving force in efforts to combat global warming even as mandatory programs on the federal level have largely stalled. At least half of the states are addressing global warming, whether through legislation, lawsuits against the Bush administration or programs initiated by governors. In the last three years, state legislatures have passed at least 29 bills, usually with bipartisan support. The most contentious is California's 2002 law to set strict limits for new cars on emissions of carbon dioxide, the gas that scientists say has the greatest role in global warming. While few of the state laws will have as much impact as California's, they are not merely symbolic. In addition to caps on emissions of gases like carbon dioxide that can cause the atmosphere to heat up like a greenhouse, they include registries to track such emissions, efforts to diversify fuel sources and the use of crops to capture carbon dioxide by taking it out of the atmosphere and into the ground.

Aside from their practical effects, supporters say, these efforts will put pressure on Congress and the administration to enact federal legislation, if only to bring order to a patchwork of state laws. States are moving ahead in large part to fill the vacuum that has been left by the federal government, said David Danner, the energy adviser for Gov. Gary Locke of Washington. "We hope to see the problem addressed at the federal level," Mr. Danner said, "but we're not waiting around." There are some initiatives in Congress, but for the moment even their backers acknowledge that they are doomed, given strong opposition from industry, the Bush administration — which favors voluntary controls — and most Congressional Republicans.

This week, the Senate is scheduled to vote on a proposal to create a national regulatory structure for carbon dioxide. This would be the first vote for either house on a measure to restrict the gas. The proposal's primary sponsors, Senator John McCain, Republican of Arizona, and Senator Joseph I. Lieberman, Democrat of Connecticut, see it mainly as a way to force senators to take a position on the issue, given the measure's slim prospects. States are acting partly because of predictions that global warming could damage local economies by harming agriculture, eroding shorelines and hurting tourism. "We're already seeing things which may be linked to global warming here in the state," Mr. Danner said. "We have low snowpack, increased forest fire danger."

Environmental groups and officials in state governments say that energy initiatives are easier to move forward on the local level because they span constituencies — industrial and service sectors, Democrat and

Republican, urban and rural. While the coal, oil and automobile industries have big lobbies in Washington, the industry presence is diluted on the state level. Environmental groups say this was crucial to winning a legislative battle over automobile emissions in California, where the automobile industry did not have a long history of large campaign donations and instead had to rely on a six-month advertising campaign to make its case. Local businesses are also interested in policy decisions because of concerns about long-term energy costs, said Christopher James, director of air planning and standards for the Connecticut Department of Environmental Protection. As a result, environmental groups are shifting their efforts to focus outside Washington.

Five years ago the assumption was that the climate treaty known as the Kyoto Protocol was the only effort in town, said Rhys Roth, the executive director of Climate Solutions, which works on global warming issues in the Pacific Northwest states. But since President Bush rejected the Kyoto pact in 2001, local groups have been emerging on the regional, state and municipal levels. The Climate Action Network, a worldwide conglomeration of nongovernment organizations working on global warming, doubled its membership of state and local groups in the last two years. The burst of activity is not limited to the states with a traditional environmental bent. At least 15 states, including Texas and Nevada, are forcing their state electric utilities to diversify beyond coal and oil to energy sources like wind and solar power.

Even rural states are linking their agricultural practices to global warming. Nebraska, Oklahoma and Wyoming have all passed initiatives in anticipation of future greenhouse-gas emission trading, hoping they can capitalize on their forests and crops to capture carbon dioxide during photosynthesis. Cities are also adopting new energy policies. San Franciscans approved a \$100 million bond initiative in 2001 to pay for solar panels for municipal buildings, including the San Francisco convention center.

The rising level of state activity is causing concern among those who oppose carbon dioxide regulation. "I believe the states are being used to force a federal mandate," said Sandy Liddy Bourne, who does research on global warming for the American Legislative Exchange Council, a group contending that carbon dioxide should not be regulated because it is not a pollutant. "Rarely do you see so many bills in one subject area introduced across the country."

The council started tracking state legislation, which they call son-of-Kyoto bills, weekly after they noticed a significant rise in greenhouse-gas-related legislation two years ago. This year, the council says, 24 states have introduced 90 bills that would build frameworks for regulating carbon dioxide. Sixty-six such bills were introduced in all of 2001 and 2002. Some of the activity has graduated to a regional level. Last summer, Gov. George E. Pataki of New York invited 10 Northeastern states to set up a regional trading network where power plants could buy and sell carbon dioxide credits in an effort to lower overall emissions. In 2001, six New England states entered into an agreement with Canadian provinces to cap overall emissions by 2010. Last month, California, Washington and Oregon announced that they would start looking at shared strategies to address global warming.

To be sure, some states have decided not to embrace policies to combat global warming. Six — Alabama, Illinois, Kentucky, Oklahoma, West Virginia and Wyoming — have explicitly passed laws against any mandatory reductions in greenhouse gas emissions. "My concern," said Ms. Bourne, "is that members of industry and environment groups will go to the federal government to say: 'There is a patchwork quilt of greenhouse-gas regulations across the country. We cannot deal with the 50 monkeys. We must have one 800-pound gorilla. Please give us a federal mandate.'" Indeed, some environmentalists say this is precisely their strategy.

States developed their own air toxics pollution programs in the 1980's, which resulted in different regulations and standards across the country. Industry groups, including the American Chemistry Council, eventually lobbied Congress for federal standards, which were incorporated into the 1990 Clean Air Act amendments. A number of states are trying to compel the federal government to move sooner rather than later.

On Thursday, 12 states, including New York, with its Republican governor, and three cities sued the Environmental Protection Agency for its recent decision not to regulate greenhouse-gas pollutants under the Clean Air Act, a reversal of the agency's previous stance under the Clinton administration. "Global warming cannot be solely addressed at the state level," said Tom Reilly, the Massachusetts attorney general. "It's a problem that requires a federal approach."

## **16) GLOBAL WARMING: THE QUADRILLION DOLLAR QUESTION**

Reuters

October 27, 2003

Internet: <http://www.reuters.co.uk/newsArticle.jhtml?type=scienceNews&storyID=3696010&section=news>

MOSCOW (Reuters) - With solutions costing up to a mind-numbing \$18,000,000,000,000,000, it is among the most expensive questions in history -- "How do you stop people from causing dangerous global warming?" Eighteen quadrillion dollars is almost 600 times the 2002 world gross domestic product, estimated by the World Bank at \$32 trillion. If you glued 18 quadrillion dollar bills end to end, they would stretch way past Pluto. Luckily, most estimates of the costs of curbing global warming by the U.N.'s Intergovernmental Panel on Climate Change (IPCC) run to just hundreds of trillions of dollars over 100 years -- a relative pin prick for a growing world economy.

But the costs of cleaning up human emissions of greenhouse gases like carbon dioxide produced by factories and cars, and of shifting toward cleaner energies such as solar or wind power, are starting to give governments nightmares. "The long-term costs could be enormous," said Andrei Illarionov, an adviser to Russian President Vladimir Putin who has backed away from previous promises to quickly ratify the U.N.'s Kyoto Protocol on curbing global warming.

Kyoto, a tiny first step toward reining in human emissions of non-toxic carbon dioxide from fossil fuels blamed for blanketing the planet and driving up temperatures, will collapse without Russia's approval. The United States pulled out in 2001. "Maybe the money would be better spent on promoting economic growth, on ending poverty or on helping developing nations," he told a climate conference in Moscow this month, pointing to the highest IPCC estimate of almost \$18 quadrillion by 2100.

### **BUSH SAYS KYOTO COSTS TOO MUCH**

Beyond Kyoto, which runs to 2012, climate experts say quadrillions of dollars in the 21st century may hang on interpretations of the word "dangerous." At root is the 1992 U.N. Framework Convention on Climate Change, ratified by the United States, which aims for "stabilization of greenhouse gas concentrations in the atmosphere that would prevent dangerous anthropogenic (human) interference with the climate system." A heat wave in Europe this year killed about 15,000 people in France. About 1,300 died in a heat wave in India. There were 562 tornadoes in the United States in May, more than any month on record. Was any of that caused by humans and "dangerous?"

If so, humanity would have to start slashing the use of the fossil fuels, a backbone of the world economy from coal-fired power plants and steel mills to trucks and cars. IPCC chairman Rajendra Pachauri said the meaning of "dangerous" was largely a value judgment and up to governments to define. But he also told Reuters: "Scientifically, one can ask...whether the extent of sea level rise which has taken place, the damage to coral reefs, changes in precipitation levels and impacts on water availability in different parts of the world are not enough reasons for decision makers to decide what is dangerous?"

The IPCC, representing a consensus among scientists, said in 2001 there was "new and stronger evidence" that people were behind global warming. Skeptics say shifts in solar radiation, for instance, might explain rising temperatures. President Bush argues that Kyoto is too expensive and unfairly excludes developing countries. Another 119 countries have ratified the treaty and fear that inaction could bring even more catastrophic costs. Rising sea levels could inundate some Pacific islands and ports around the world while a warmer climate may cause deserts, flooding, storms and drive many species to extinction.

"We're on the way toward causing dangerous climate change," said Steven Guilbeault of the environmental group Greenpeace. "We should act now before it's too late." The IPCC says all but one scenario for climate costs -- the \$18 quadrillion tag -- would cut world GDP by 1 percent or less by 2050. "It has negligible impacts on the projected economic growth," the IPCC said in a report this month.

Even the strictest constraints would brake GDP by only 4.5 percent in 2050. Quadrillions of dollars apparently evaporate because they start in 1990 dollars and get eroded by inflation. And the scenarios do not gauge benefits of averted climate change -- like the possibility of not having to build Dutch-style dykes -- nor examine short-cut solutions such as sucking carbon dioxide out of the air and burying it. Even if fully implemented, Kyoto would be of little help. It would cut global temperatures by only 0.15 degrees Celsius (0.3 degrees Fahrenheit) by limiting emissions of gases like carbon dioxide -- a fraction of a forecast of a global temperature rise of 1.4-5.8 Celsius by 2100.

## **17) TESTING THE SENATE'S METTLE**

New York Times

October 27, 2003

Internet:

<http://www.nytimes.com/2003/10/27/opinion/27MON1.html?ex=1067922000&en=b8bfba21ba7b8aa&ei=5062&partner=GOOGLE>

There is a good test of senatorial courage coming this week. For the first time, senators will be asked whether they are prepared to do something serious about global warming. The question comes in the form of a bill by John McCain and Joseph Lieberman that would impose mandatory caps on industrial emissions of carbon dioxide and other gases thought to be heavily responsible for warming the earth's atmosphere. The bill is a long shot. But it will provide the first true test of the sincerity of senators who say they care about the problem and have faulted President Bush for not doing enough.

More broadly, it will also tell us whether the politics of global warming are finally beginning to catch up to the science of global warming. The science seems clear enough, and surveys suggest that the public and many local politicians are worried. But Washington hangs back, fearful of asking the country to make the investments in cleaner fuels, cars and power plants needed to start bringing emissions down.

This fear has been engendered in part by Mr. Bush, who remains stubbornly positioned at the rear of a parade he ought to be leading. Warning of job losses, he has opposed not only the 1997 Kyoto Protocol but even the mildest variations on that agreement. Instead, he offers research into technological fixes (fine, as far as they go) as well as a voluntary program that will allow industrial emissions to grow as long as they increase more slowly than the economy itself, which of course misses the point. The carbon in the atmosphere, already dangerously high, is likely to stay there for a long time. Thus the name of the game is to stabilize and reduce emissions, not merely to slow their growth.

Senators McCain and Lieberman have it right. Their plan would require energy, transportation and manufacturing companies to cut their emissions to 2000 levels by 2010. That isn't asking a lot. According to two reputable studies, the cost would be less than \$20 per family per year, and there would be no negative impact on employment. Indeed, the investments in new technologies necessary to achieve the reductions, as well as the money saved on gasoline from more efficient cars, could actually boost the economy.

The bill also offers a range of clever economic incentives — chiefly a market-based system of emissions trading, patterned after the highly successful acid rain program in the 1990 Clean Air Act — to help industries keep the costs of compliance low. Three hours of debate will be allowed for the McCain-Lieberman forces, three for the opposition. The point will undoubtedly be made that America is under no obligation to act as long as developing countries like China increase their emissions. The truth is just the reverse: One cannot expect developing nations to do anything until the United States, the biggest polluter, takes the lead. McCain-Lieberman is a splendid chance to do so.

## **18) TWELVE STATES SUE U.S. OVER UTILITY POLLUTION**

Reuters

October 27, 2003

Internet:

[http://story.news.yahoo.com/news?tmpl=story&u=/nm/20031027/sc\\_nm/environment\\_emissions\\_dc\\_2](http://story.news.yahoo.com/news?tmpl=story&u=/nm/20031027/sc_nm/environment_emissions_dc_2)

WASHINGTON (Reuters) - Twelve U.S. states and the District of Columbia sued the Bush administration on Monday to block Clean Air Act changes for coal-fired utility companies that the states say will weaken air pollution standards and harm public health. The Environmental Protection Agency on Monday implemented rules to allow U.S. coal-fired utility companies and oil refiners to significantly expand aging facilities without installing pollution-reduction equipment. Emissions from coal-fired plants can aggravate asthma, chronic bronchitis and pneumonia. The 12-state coalition called the changes in the EPA's rules a major rollback of the Clean Air Act.

The lawsuit, filed in the federal appeals court in Washington, asserted that only Congress can make such major changes in air pollution policy. EPA officials contend the new rules will not increase power plant emissions. Northeast states are particularly concerned about emissions because prevailing winds push pollutants from huge Midwest-area power plants into their region. Last week, a separate group of states sued the administration to force it to regulate greenhouse gas emissions of carbon dioxide.

"We should not be relaxing emission control standards when air pollution continues to cause such devastating health and environmental problems," New York Attorney General Eliot Spitzer said in a statement.

Other states in the lawsuit are: Connecticut, Maine, Maryland, Massachusetts, New Hampshire, New Mexico, New Jersey, Pennsylvania, Rhode Island, Vermont and Wisconsin. "No litigation from the Northeast attorneys generals can produce anything but confusion," utility lobbying group Electric Reliability Coordinating Council said in a statement. Separately, the U.S. Senate is expected to vote on Thursday on a measure proposed by Connecticut Democratic Sen. Joseph Lieberman and Arizona Republican Sen. John McCain that would cap carbon dioxide emissions for the first time. Global warming is thought to be caused by the atmospheric build up of heat-trapping greenhouse gases. The burning of fossil fuels in cars and power plants is a major source of carbon dioxide emissions. The White House has sought voluntary cutbacks in emissions, arguing mandatory reductions could hurt the U.S. economy.

## **19) GOVT MUST DRIVE THROUGH GREEN CAR STANDARD**

Yomiuri Shimbun

October 27, 2003

Internet: <http://www.yomiuri.co.jp/newse/20031027wo13.htm>

The 37th Tokyo Motor Show, which opened to the public Saturday, revealed that automakers' enthusiasm toward environmental protection measures still varies widely among companies and countries. Cars powered by fuel cells were on show at Makuhari Messe convention center in Chiba. The technology is expected to form the clean energy system of the 21st century. Among the fuel-cell vehicles, Toyota Corp.'s prototype with a thin, plate-shaped power generator installed beneath the seats employs high-tech features, including its control by electric signals. Fuel-cell cars first started attracting attention at motor shows in 1997, when the U.N. climate change conference in Kyoto adopted the Kyoto Protocol.

But the models displayed by Japanese and other makers at the time had huge power generators that occupied the entire rear seat of a passenger car with the capacity to accommodate five people. The fuel-cell cars displayed at this year's Tokyo Motor Show not only were more roomy inside, but also demonstrated advanced technological development, such as innovative driving systems. Honda Motor Co., for example, has developed a technology that allows the engines of fuel-cell cars to be started at as low as minus 20 C. The technology was made to overcome the problem of water discharged from fuel cells freezing in cold

weather. "The problem was not noticed in laboratory tests, but surfaced during driving tests. We managed to overcome the problem with the new technology," a Honda official said.

The official predicted that the automaker "can shift to mass production once infrastructure for the fuel (such as facilities to provide hydrogen) is ready." However, the eco-technologies of the automakers differed widely, with the main gap in fuel-cell cars in terms of driving distance after one recharge of fuel, which ranged from 150 kilometers to 400 kilometers. Also, many carmakers from Western Europe and some Japanese makers did not indicate the fuel efficiency of models that already are on the market at the motor show.

Fuel efficiency symbolizes the environmental protection efforts of automakers, as evidenced by the preferential tax treatment in Japan for cars with high fuel efficiency. As a result, the varying degrees of fuel efficiency in the cars on display revealed differences in each maker's stance toward the issue. The important point though is that differences in environmental policy cannot be downplayed as being simply due to disparities in terms of the makers' traditions or characteristics. This is because the number of cars is continuing to increase across the world, especially in Asia--a factor that may worsen environmental problems in the region, such as global warming and air pollution. In this connection, the government proposed at a transport ministers meeting in January last year to develop an international standard of environmentally friendly cars. The meeting was attended by ministers from 20 Western and Asian countries. At a separate international conference in January this year, participants reaffirmed the importance of setting a uniform goal to develop environmentally friendly cars.

Details of the goal will be discussed by the United Nations' World Forum for Harmonization of Vehicle Regulations. Japanese, U.S. and European automakers also held a conference in Paris last autumn to discuss how to unify car regulations, which currently differ widely among countries. At the second meeting of the conference held at Makuhari Messe on Wednesday, the carmakers agreed to accelerate the move. But there are still many disparities concerning the recognition of eco-friendly cars from country to country. For example, while Japan is toughening regulations on diesel-powered vehicles to prevent air pollution, European countries place high priority on the use of such cars for their high fuel efficiency and low energy consumption, which are expected to help them address the issue of global warming. Currently, Japan is the leader in the development of eco-friendly cars as seen in the launch of fuel-cell cars by Japanese makers late last year. In this respect, it is important for Japan to take the lead concerning the development of an international standard. Japanese automakers also are expected to make further efforts in this field.

## **20) CUTTING GREENHOUSE GASES, OR NOT**

New York Times

October 26, 2003

Internet:

<http://www.nytimes.com/2003/10/26/weekinreview/26REVK.html?ex=1067745600&en=b2abdf311c88e581&ei=5062&partner=GOOGLE>

In the international debate over how to deal with global warming, the United States and China occupy center stage. The United States has long been the dominant producer of carbon dioxide emissions and the other heat-trapping greenhouse gases associated with rising temperatures. China still lags far behind in total emissions, but its vast population and rapid rate of economic growth put it high on experts' lists of future sources of the warming gases. India is not too far behind. China is rapidly increasing its consumption of coal and oil to fuel an ever more electrified and mobile society. India is experiencing a similar energy surge for similar reasons, and like China, it hopes rapid growth will help to reduce widespread poverty.

But if the United States, China and India are critical to meeting the threat of greenhouse gases, the question is: who goes first? The emissions restrictions called for in the pending climate treaty known as the Kyoto Protocol apply only to industrialized countries that ratify it. There are provisions that could allow a rich country to gain credits for investing in emissions-reducing projects in poorer ones, but the rules remain mired in disputes over how to measure gains and what kinds of projects should qualify. In the meantime,

President Bush has rejected the Kyoto pact, objecting that it is costly and ignores China, India and other big developing nations.

Nonetheless, many global warming experts say that history and logic require the United States to take the lead. In almost all international environmental agreements in recent decades, the so-called developing world has essentially been allowed to sit out the first round or two. Whether the goal has been curbing global warming, restoring the ozone layer or phasing out toxic organic chemicals, there has long been a broad consensus that the first steps should be taken by the industrial powers. The 1992 climate treaty, which underpins the pending Kyoto Protocol, explicitly speaks of "differentiated responsibilities" for advanced and advancing nations. After all, the logic goes, rich countries achieved their prosperity in part because they were unhampered by restrictions on the use of natural resources.

Still, the Bush administration remains opposed to any emissions restrictions, though it has been sending mixed signals of late. Last November, for example, during international treaty talks in India on the climate change issue, Paula J. Dobriansky, the under secretary of state for global affairs, said, "We do not see targets and timetables as realistic for developing countries." But critics of Mr. Bush say that is not a sign of progress. "Their messages at home and abroad are both calculated to discourage action," said Elliot Diringer, the director of international strategies for the Pew Center on Global Climate Change, a private group advocating emissions cuts. "At home you say Kyoto is unfair because it doesn't include developing countries and in negotiations you say it's unfair to ask developing countries to take targets," he said. "The message is inconsistent but the strategy is consistent — for more delay."

## **21) FORESTS MAY NOT SOAK UP AS MUCH, RESEARCH SHOWS**

The Star

October 26, 2003

Internet:

[http://www.thestar.com/NASApp/cs/ContentServer?pagename=thestar/Layout/Article\\_Type1&c=Article&cid=1066947009173&call\\_pageid=968332188774&col=968350116467](http://www.thestar.com/NASApp/cs/ContentServer?pagename=thestar/Layout/Article_Type1&c=Article&cid=1066947009173&call_pageid=968332188774&col=968350116467)

OTTAWA—Striking findings are emerging from research at the world's largest open-air climate-change experiment that will prove troubling to Canada's policy-makers and challenging for scientists. The results strongly suggest that Canada's forests won't be able to soak up anywhere near as much excess carbon dioxide as the federal Kyoto action plan assumes. Because higher carbon dioxide levels make plants grow faster, Ottawa was counting on our forests to soften the impact of greenhouse warming by taking in more carbon dioxide from the atmosphere and storing it for decades in the soil as organic matter and other forms of carbon.

By 2008, roughly one-sixth of Canada's Kyoto target reduction in carbon dioxide emissions annually is supposed to come from these forest and farmland "sinks." Federal officials have never made public the detailed studies to support that estimate. Now, research warns that the projected carbon storage by our forests could be cut in half because of interference from ground-level ozone, a leaf-scorching gas that also comes from burning fossil fuels. And the forests could become a net source of carbon dioxide years sooner than projected. "Any benefit you get from high carbon dioxide is largely wiped out by ozone," David Layzell told MPs and policy advisers at a briefing about the carbon cycle here this week.

Layzell, a Queen's University biology professor, was commenting on a study by U.S. researchers published last week in the British science journal *Nature*, the latest in a series of striking findings from a unique forest laboratory located in northern Wisconsin. The 10-year, \$18 million experiment, begun in 1998, involves exposing forest stands to controlled levels of carbon dioxide and ozone, the main constituent of urban smog. The chief species studied, the poplar, is the most widespread tree in Canada, covering an estimated 16 million hectares of forest. But poplars growing in the carbon dioxide levels forecast for mid-century in North America falter at soaking up the gas when also exposed to concentrations of ground-level ozone already common across southern Ontario and parts of Canada, U.S. researchers found.

Ecologist Wendy Loya from Michigan Technological University led a team that carried out a tricky measurement of how much of the carbon actually found its way into the soil, as humus and other chemicals formed from decaying leaves. They compared storage in two forest stands — one growing in carbon dioxide and the other in carbon dioxide plus ozone. Over four growing seasons, the ozone-affected trees contributed three tonnes per hectare less carbon to the soil compared with trees receiving only carbon dioxide, an amount Layzell calls "quite significant." Loya says that ozone scorches tree leaves and generally reduces the amount of litter dropped to the ground to decay. But the pollutant may also adversely affect the soil microbes essential to the decay process. "We're definitely seeing a change in the way that carbon is being processed through the soil system," she says.

Four scientists from the federal forestry service are among the 55 researchers from seven countries working at the open-air forest lab, which costs more than \$1.5 million a year to run and is largely funded by U.S. government agencies. "This is entirely policy-driven science. We need to understand what future forests will look like under climate change," says Kevin Percy, a forest physiologist and Canadian member on the committee that oversees the experiment. Last year, a team led by Percy reported in *Nature* that the ozone-carbon dioxide combination increased damage from the forest tent caterpillar in the Wisconsin test stands. The caterpillar already defoliates more deciduous forest than any other insect in North America. "Everything points to insects playing a very important role in determining whether our forests are going to be carbon sinks or sources in the future," the federal scientist says.

Sophisticated controls maintain the ozone concentration in the forest laboratory over the entire growing season at an average of 55 parts per billion, well below levels routinely recorded for days at a stretch in Ontario and Quebec forests during smog alerts. Percy's research also found that the ozone pollution disrupted the normal relationships between insect predator and prey. Aphids flourished because their natural enemies were significantly diminished, for reasons still unclear.

"Ozone is obviously affecting the productivity and chemistry in the tree canopy which then cascades down into the forest floor and eventually into the soil," he says. The Wisconsin forest laboratory features a dozen stands of poplar, birch and maple trees ringed by hollow tubes 12 metres high that pump out the extra carbon dioxide and ozone from storage tanks. Spaces between the tubes allow natural air circulation and the movement of birds and insects.

## **22) KYOTO PROTOCOL: COMMISSION HAILS AGREEMENT ON MONITORING GREENHOUSE GAS EMISSIONS**

Europa World

October 24, 2003

Internet: <http://www.europaworld.org/week150/kyotoprotocol241003.htm>

The European Commission welcomed the vote this week in the European Parliament to approve a Decision of the Parliament and the Council on monitoring greenhouse gas emissions. This Decision is important because it implements the EU's commitments under the 1997 Kyoto Protocol, which aim to curb global warming by reducing emissions of gases that contribute to it.

The Decision obliges Member States to monitor and report emissions of greenhouse gases accurately and put in place programmes to reduce them. With this, the EU has the infrastructure necessary to monitor progress, gauge the effectiveness of measures, and achieve reductions.

"The agreement on this Decision shows the EU's determination to implement all the provisions of the Kyoto Protocol and to reduce greenhouse gas emissions", Environment Commissioner Margot Wallström declared.

"It means that the EU and its Member States will improve their monitoring of both greenhouse gas emissions and progress towards their Kyoto targets, which will provide us with a comprehensive set of data of EU greenhouse gas emissions and of our climate change policies. It also means that we will comply with

our monitoring and reporting commitments under the Kyoto Protocol. When the EU ratified the Kyoto Protocol, we knew that solid action had to follow. This Decision represents such solid action." The Decision replaces the existing Council Decision 93/389/EEC on the monitoring of greenhouse gas emissions in the EU. In particular, it: reflects the wider and more detailed reporting requirements and guidelines for implementing the Kyoto Protocol, which were agreed at international conferences on tackling climate change in 2002; provides for more accurate guidelines on emission forecasts, which will increase their reliability and thereby the ability of the EU and its Member States to monitor their progress towards their Kyoto commitments; puts in place Kyoto Protocol infrastructure on issues such as national systems for monitoring greenhouse gas emissions and registries for recording transfers of emission rights under the Kyoto Protocol.

The Decision promotes compliance with the EU's Kyoto targets by requiring Member States on an annual basis to match their greenhouse gas emissions with emission rights granted under the Kyoto Protocol. It also provides for a review in 2006 of the extent to which the EU and its Member States are meeting all their commitments under the Kyoto Protocol, in the light of which the Commission may make proposals to ensure these commitments are met.

The Decision also benefits the public by increasing the quality and transparency of emissions reporting by the EU and its Member States, which will enable them to judge better the progress of the EU towards its Kyoto commitments. The European Commission proposed this Decision in February 2003. The European Parliament today voted through changes to that proposal on which it had reached agreement with the Member States and which therefore constitute the final Decision on this issue. The Environment Council is expected to approve all of these changes at its next meeting on 27 October. The Decision will enter into force as soon as it bears the signatures of the Presidents of the Parliament and Council.

### **23) UK'S BLAIR WOOS BANKS FOR EMISSIONS TRADING SCHEME**

Reuters

October 24, 2003

Internet: [http://www.forbes.com/home\\_europe/newswire/2003/10/24/rtr1122232.html](http://www.forbes.com/home_europe/newswire/2003/10/24/rtr1122232.html)

LONDON, Oct 24 (Reuters) - Ten major investment banks sat down to an "environmental" breakfast with Britain's Prime Minister Tony Blair at Downing Street this week to discuss a new European emissions trading scheme. Senior executives from Morgan Stanley French bank Societe Generale and Barclays Capital were among those invited to discuss an emissions trading market for the City of London, a Downing Street spokeswoman confirmed on Friday. One banker who attended said Blair wanted to discuss what the City of London could do to help with the climate change initiative. "There are a lot of emission rights which could be traded in the future when the new EU directive is put in place," he said.

Margaret Beckett, Minister for the Environment, Food and Rural Affairs, also attended the breakfast. From 2005 European Union companies in the power, iron, steel glass, cement, ceramic, pulp and paper industries will have "emission rights" or "carbon permits" to cover their carbon dioxide emission each year. In Britain this will involve about 2,000 installations.

Under an emissions trading scheme, companies which cut emissions by more than they initially pledged, would be able to sell them on as "credits" to firms unable to meet required reductions. Britain has been running a voluntary emissions trading scheme since April last year. But from January 1, 2005, a European emissions trading scheme will come into force for all 15 member states, plus the 10 accession states.

"This should be an attractive market for financial institutions to be involved in and with our experience of the voluntary scheme, London is ideally placed to be a base," the Downing Street spokeswoman said. The proposed UK scheme could mirror a similar exchange set up in Chicago. The Chicago Climate Exchange gives companies credits for cutting carbon dioxide omissions.

## **24) AS SENATE DEBATES GREENHOUSE GAS CAPS, LEWIS & CLARK COLLEGE IS FIRST TO ACHIEVE KYOTO PROTOCOL COMPLIANCE**

Climate Trust

October 24, 2003

Internet: [www.climatetrust.org](http://www.climatetrust.org).

(Portland, Ore.)-For the cost of a movie and popcorn for each student, Lewis & Clark College has become the first campus in the nation to comply with the greenhouse gas emissions targets called for in the Kyoto Protocol. The achievement means that the campus has reduced emissions of the gases that contribute to global warming to 7 percent below what it produced in 1990. The reduction was achieved through the purchase of carbon dioxide offsets.

Offset projects reduce greenhouse gas levels in the atmosphere and help mitigate climate change by funding efforts such as reforestation, green building practices or wind farms. The result is a cost-effective method that enabled Lewis & Clark College to minimize its net carbon impact. Students at the private liberal arts college spearheaded the effort. The cost to achieve compliance is estimated at \$10 per student.

"Our goal was to demonstrate that individuals can make a difference in fighting global warming," said Laura Matson '05, an economics major from St. Louis Park, Minn. Students raised \$16,400 to purchase carbon offsets through the Climate Trust, a Portland-based nonprofit organization that promotes climate change solutions by providing greenhouse gas offset projects and advancing offset policy. "Offsets are an important tool in reducing our impact on the global climate," said Michael Ashford, deputy director of the Climate Trust. "Offsets enable more reductions to occur with already limited resources."

The College's achievement comes as a Senate vote is expected October 29 on the McCain-Lieberman Climate Stewardship Act. The bill would cap emissions of the gases that cause global warming, but at a level below the Kyoto Protocol targets.

Matson, along with Brian Erickson '06, a biology major from Kirkwood, Mo., and Julian Dautremont-Smith, from Allentown, Pa., an environmental studies major who graduated last May, inventoried the amount of campus emissions, suggested methods of reduction, lobbied for funding to purchase offsets, and launched an educational campaign to explain the protocol's relevance to the campus community. Students from the campus group Students Engaged in Eco-Defense helped organize the campaign.

"This achievement is the result of students being engaged at a very high level in environmental policy," said Eban Goodstein, professor of economics at Lewis & Clark. "The students engaged the science, economics and politics of global warming. Kyoto Protocol compliance through offset purchases appears to be quite affordable. The example of Lewis & Clark College indicates that colleges and universities are the perfect laboratory in which to examine the larger implications of emissions reduction efforts."

The college will receive a certificate honoring the protocol compliance effort in November from College Climate Response, an organization of faculty members from across the country who are engaged in analyzing greenhouse gas inventories. The campus plans to mark receipt of the certificate with a lecture about global warming issues.

The Climate Trust is a nonprofit organization formed in 1997 in response to landmark Oregon legislation requiring new power plants to counter their global warming impact. This innovative legislation allows power plant developers to meet this carbon dioxide emission standard by making a payment to the Climate Trust. These funds and the funds provided by participants in the Greenhouse Gas Partnership Program are used to stimulate projects that avoid, displace or sequester CO<sub>2</sub> emissions. These projects are called offsets because they offset the production of CO<sub>2</sub> and other greenhouse gases.

For more information, visit [www.lclark.edu/~seed/kyoto.html](http://www.lclark.edu/~seed/kyoto.html)

## **25) INDUSTRY, OTTAWA AGREE KYOTO CARBON-TRADING PRINCIPLES**

The Star

October 23, 2003

Internet:

[http://www.thestar.com/NASApp/cs/ContentServer?pagename=thestar/Layout/Article\\_Type1&c=Article&cid=1066918170871&call\\_pageid=968350072197&col=968705923364](http://www.thestar.com/NASApp/cs/ContentServer?pagename=thestar/Layout/Article_Type1&c=Article&cid=1066918170871&call_pageid=968350072197&col=968705923364)

OTTAWA (CP) — A group representing some of the country's biggest industries has agreed with the federal government on principles of an emissions-trading system to help Canada meet its commitments under the Kyoto protocol. The purpose of the system is to reduce the cost to business of meeting the emissions-cutting targets of the climate-change protocol, officials told a briefing today. The system would allow heavy emitters of greenhouse gases to meet Kyoto targets by reducing their own emissions or by buying emissions permits from other companies — in Canada or abroad — that come in under their emissions limits. "If we are to achieve our environmental goals, we must harness the potential of market forces," said Bob Page, chairman of the International Emissions Trading Association.

The group, which has an office in Toronto, is dedicated to establishing an international emissions-trading system. It represents 27 of Canada's biggest companies in industries such as oil, chemicals, steel and pulp and paper. Even though the principles are vague, they indicate significant progress in easing the tension between Ottawa and big business with respect to the Kyoto treaty. The first principle says the system must "deliver emissions reductions with environmental integrity, economic efficiency and social equity." Another calls for a single emissions market in Canada, which seems to rule out Alberta's proposal to have a market of its own.

A joint statement calls for Canada to link its emissions trading system with those of other Kyoto countries, and says the private sector should lead development of a trading infrastructure. It says the system must include enough buyers and sellers for adequate liquidity, and should be transparent while addressing "the normal need for commercial confidentiality." John Bennett of the Sierra Club criticized the process because it has excluded grass-roots environmental groups. The most controversial principle seems to say that Canadian companies would have unlimited access to emissions credits from other countries. It says: "Canada's climate change plan imposes no quantitative or qualitative limitation on a company's use of Kyoto units within the Canadian system."

Bennett said that contradicts promises from Environment Minister David Anderson that Canada will achieve most of its emissions reductions through domestic action. Matthew Bramley of the Pembina Institute suggested that the statement would allow Canada to rely heavily on so-called hot-air credits from Russia. Russia, which has not yet ratified the protocol, is expected to have a lot of extra emissions credits caused by the collapse of its economy rather than by any improvement in industrial processes. These credits are often referred to as "hot air credits." Officials conceded that the principles are just a first step toward a functioning system. The government has promised legislation that would give the system a legal framework and penalize companies that don't follow the rules.

## **26) THE COALITION OF THE GLOBAL POLLUTERS**

The Age

October 23, 2003

Internet: <http://www.theage.com.au/articles/2003/10/22/1066631499650.html>

The "coalition of the willing" is not only a strategic alliance in which Australia's main contribution has been to bring a kind of respectability to the US invasion of Iraq. The Howard Government also joined the Bush Administration in refusing to sign the Kyoto Protocol on greenhouse gas emissions. Coal producers are politically powerful in both countries. They are also desperate. They know that unless there is an imminent scientific breakthrough akin to a miracle that can reduce carbon dioxide (CO<sub>2</sub>) emissions into the atmosphere caused by coal-fired electricity generation, their industry has no long-term future. Australia is

linked to the US in the defence of coal as the main source of electricity generation through a "climate action partnership" in which research is directed to finding an economical and safe means of capturing the CO<sub>2</sub> emitted from coal-fired power stations, and then burying the gas underground (geo-sequestration).

To this end Australian and US officials are focused on the common interest in both countries in the geological storage, capture and separation of CO<sub>2</sub>. The Bush Administration has set up a \$US1 billion (\$A1.4 billion) program called Futuregen for industry to design, build and operate a nearly emission-free coal-fired electricity and hydrogen production plant based on geo-sequestration. The Howard Government has allocated \$112 million for strategic research into fossil fuel energy, mainly for carbon sequestration - and for the first time in 30 years, there is no fund for strategic R&D in renewable energy. The shift in funding away from renewable energy R&D and in favour of sequestration of greenhouse gases from fossil fuels would be defensible if there was a general scientific consensus that this was the best way to spend the energy R&D dollar. But quite the opposite is the case.

In a discussion paper prepared by the Electricity Restructuring Group from the University of NSW's School of Electrical Engineering, a powerful case has been made that there is a strong international scientific consensus that "approaches combining energy efficiency, distributed cogeneration, renewable energy and low-emission fossil-fuelled generation (gas fired) hold the greatest potential for large-scale emission reductions". The consensus involves the International Panel on Climate Change, the United Nations Development Program and World Energy Council Report and the British Department of Trade and Energy white paper of 2003. The Paris-based International Energy Agency used technical modelling to produce a scenario that shows "geo-sequestration plays almost no role in 2020 and only a minor role in 2040 - renewables make over twice its contribution. Other scenario results also suggest a major decline in global coal-fired electricity whether geo-sequestration is available or not."

Given the weight of scientific opinion, it seems amazing that the Australian Government has chosen to make the capture and sequestration of CO<sub>2</sub> one of Australia's national research priorities. In any event, it is an example of "picking winners" big time - and picking winners is supposed to be completely contrary to the economic rationalist philosophy that the Government claims drives its industry development policies. Driving the massive government assistance to geo-sequestration is the Government's part-time Chief Scientist, Dr Robin Batterham (who is also chief technologist for the mining giant Rio Tinto). Batterham as Chief Scientist claimed in a presentation to the state and federal ministerial council on energy that the cost for "zero emission" coal technology is around \$10 a tonne of CO<sub>2</sub> "avoided", compared with alternate means of avoiding CO<sub>2</sub> emissions.

According to Batterham, the cost estimate came from unpublished data from Roam Consulting. In response to a written inquiry about the data from Greens senator Bob Brown, Roam Consulting said "the data does not correlate directly with the information we provided to our client". The data has nevertheless been incorporated in the Beyond Kyoto report of the Prime Minister's Science and Engineering Innovation Council and seems to be the scientific excuse for the massive redirection of taxpayer funding to geo-sequestration-related R&D. The University of NSW's Electricity Restructuring Group commented: "The chosen criteria and methodology in its calculation is unknown. Nevertheless, it is some four to five times less than other published estimates (CSIRO, GEODISC, IEA, IPCC and the US Department of Energy), which all suggest significant abatement costs."

A research paper prepared in Brown's office and the Electricity Restructuring Group paper points to the fact that the policy of putting virtually all the Government's greenhouse abatement eggs in the geosequestration basket is high risk and probably irresponsible, given the alternatives that are available and given the weight of scientific opinion. But even more important is the perception of conflict of interest between Batterham's simultaneous roles as Government Chief Scientist and Rio Tinto adviser. Brown (and the public) is entitled to answers to his questions, including what advice Batterham gave the Government on the Kyoto Protocol, and Batterham's role in developing research links between Australia and the United States - especially in supporting Futuregen, because Rio Tinto is involved in Futuregen through its US subsidiary Kennecott Energy.

## **27) NEW PLAN TO CURB POLLUTION**

Times News Network

October 22, 2003

Internet: <http://timesofindia.indiatimes.com/cms.dll/html/uncomp/articleshow?msid=245825>

NEW DELHI : The government has launched a 12-month national strategy study on implementing the clean development mechanism in India . CDM aims at checking climate change by giving developed country polluters the option to win credits for reducing pollution by funding clean projects in developing countries. Multilaterally, this mechanism can only take off if an internationally-negotiated protocol for checking climate change comes into operation. This does not seem likely in the near future. But on Tuesday, environment minister Baalu launched the study, to be conducted by The Energy and Resources Institute (TERI) with Swiss consultant INFRAS AG.

It aims at assessing the opportunities presented by potential international markets and evaluating processes and methodologies. Expecting this to facilitate the operationalisation of CDM in India, Baalu said India's water resources, ecosystems, agriculture and coasts are vulnerable to climate change and work is now on to prepare a detailed inventory of greenhouse gases and identify vulnerability and adaptation concerns. India's contribution to the polluting greenhouse gas concentrations in the atmosphere is low yet, said Baalu. It has undertaken reforms which contribute to international efforts at protection.

## **28) WIDE ATTENDANCE, FOCUSED ATTENTION NEEDED FOR ISLANDS MEETING - UN OFFICIAL**

UN

October 21, 2003

Internet: <http://www.un.org/apps/news/story.asp?NewsID=8626&Cr=small&Cr1=island>

21 October – The top United Nations advocate for poor countries has called for the greatest possible participation in next year's meeting on Small Island Developing States (SIDS), and has outlined a series of topics for focus. Anwarul Chowdhury, Under-Secretary-General and High Representative for Least Developed Countries, Landlocked Developing Countries and SIDS, told the General Assembly's Economic and Financial Committee that "the widest possible range of stakeholders, including Member States, multilateral financial institutions, the private sector, non-governmental organizations (NGOs), and other civil society organizations should participate" in the conference to be held next August in Mauritius. The meeting is a 10-year review of the implementation of the Barbados Programme of Action for the Sustainable Development of Small Island Developing States, which was signed in 1994.

Mr. Chowdhury said for Mauritius "we need a focused agenda." He suggested the delegates identify priorities, to include the vulnerability - economic, social and environmental - of SIDS, poverty eradication measures, freshwater issues, climate change, renewable energy, development of marine resources and sustainable fisheries, HIV/AIDS, and trade. He said global advocacy for the cause of SIDS and the mobilization and coordination of international support for realizing the Mauritius outcome was vital in helping those countries face development challenges in the coming years.

## **29) UN CONFERENCE ON DISASTERS OPENS WITH PLEA FOR HELP**

AFP

October 16, 2003

Internet:

[http://story.news.yahoo.com/news?tmpl=story&u=/afp/20031016/sc\\_afp/world\\_environment\\_031016153957](http://story.news.yahoo.com/news?tmpl=story&u=/afp/20031016/sc_afp/world_environment_031016153957)

BONN (AFP) - A UN conference on natural disasters opened with an appeal to richer countries to help the developing world cope with the impact of floods, drought and hurricanes. Klaus Toepfer, head of the UN

Environment Programme (UNEP), said developed nations could recover from natural catastrophes faster thanks to their strong economies. In developing nations, however, recovery could be long and tortuous. "Years of progress could be washed away within hours," he told the conference in the former German capital. Toepfer said statistics showed that a natural disaster in an industrialised country killed an average 22 people. In an emerging economy however, the toll rose to 1,052.

Citing one of the main themes of the conference, he called for far greater cooperation between rich and poor nations. The gathering of experts and officials is meeting until Saturday on how to integrate early-warning mechanisms into public policy. In a welcome speech, German Environment Minister Juergen Trittin said there were three times as many natural disasters now as in the 1960s causing seven times as much damage. He claimed there were 755 recorded catastrophes last year affecting some 10 percent of the world population. Trittin, a member of Germany's Greens party, blamed global warming as the prime cause and urged better environmental protection measures and greater use of renewable energy.

### **30) EU-ASIA MINISTERS DISCUSS ENVIRONMENT ISSUES**

EU Business

October 12, 2003

Internet: <http://www.eubusiness.com/afp/031012202554.d0inbqgz>

EU environment ministers and their counterparts from 10 Asian countries began meeting here Sunday on a range of issues affecting the future of the planet, Italian minister Altero Matteoli said. "This is an important meeting and its importance is shown by the fact that there are 25 countries represented, 15 from the European Union and 10 Asian countries," the minister said. Matteoli said ministers at the meeting would discuss "important issues about the future of the planet like climatic changes, water resources, the implementation of the Kyoto protocol and desertification."

The ASEM (Asia-Europe Meeting) was expected to finalise a joint declaration on Monday after a working dinner late Sunday. The Italian minister said both sides had reached broad agreement after technical discussions by officials on Saturday but that "small issues" still remained. The meeting, a follow-up to last year's World Summit on Sustainable Development in Johannesburg, aims to identify shared views and prospects for dialogue, cooperation and partnerships. Specific issues under discussion include sustainable consumption and production patterns, sustainable use and conservation of natural resources -- including biodiversity and forests, oceans and in particular environmental aspects of maritime safety -- as well as energy and public participation. The meeting is only the second of its kind between ministers of the two regions. The first summit took place on January 17 last year in Beijing.

### **31) GREENHOUSE GASES: MATTEOLI, NEGOTIATE MEASURES AND PROJECTS FO**

AGI

October 6, 2003

Internet:

<http://www.agi.it/english/news.pl?doc=200310062016-1128-RT1-CRO-0-NF82&page=0&id=agionline-eng.italyonline>

(AGI) - Rome, Italy, Oct. 6 - The Party Conference of the Conventions for climatic changes, which will take place in Milan from December 1 until the 12, will deal with the negotiation on "the measures and the projects for the long and medium period objectives for the reduction of global emissions". This was stated by the Minister of the Environment, Altero Matteoli, during the press conference to present the results of the informal consultation for the Cop 9 preparation which had the 13 European ministers of the environment and the representatives of 29 countries meet today. Matteoli insisted upon the direct relationship between emission reduction and the increase in research and international cooperation for the spreading of innovative technology. Among the issues that Cop 9 will have to deal with there is also the Kyoto protocol, whose implementation has been delayed while awaiting that Russia ratifies the agreement that establishes a 5.2 pct reduction in gas emissions compared to 1990. After the USA's withdrawal from the protocol the Russian

Federation (whose gas emissions are equivalent to 17.4 pct of the total) has an important role for the implementation of the agreement. Italy in the name of the EU and as chairman is preparing the Cop 9 so as to facilitate a positive decision from Russia. According to recent studies on climatic changes within 2030 the emissions must be reduced by at least 50 pct compared to 1990, a much higher level than the Kyoto protocol one, and it is therefore necessary that more countries participate in the safeguarding of the environment. Other issues of the Cop 9 will concern the finding of solutions for renewable energy sources, the fight against pollution and the Clean Development Mechanism (CDM) programs in developing countries.

Concerning the US position on the Kyoto Protocol Matteoli said that the USA believes it is not ready to ratify it but they are however implementing policies which join production needs with the safeguarding of the environment. The minister together with the director of the ministry of the environment, Corrado Clini, highlighted the importance of hydrogen as energy for the future, "another very positive decision was to dedicate a whole day of Cop 9 to this fuel". Concerning clean energy Matteoli admitted that Italy is still behind and that "this situation is unbearable".

The minister spoke of the excessive problems and resistance to renewable energy source plants, which however do not guarantee all the necessary energy for Italy and the resistance of "local organisations and committees". The executive Secretary of the Climate Convention, Yoke Waller Hunter, the UK Minister of the Environment and Miklos Persanyi, President of Cop 9, were present at the press conference. They both stated that there is still no scientific proof that there is a connection between gas emissions and climatic changes, but if there were a possibility to interfere with this possible connection then it must be done. "Whatever we do today to stop climatic change will have an impact and we must face this", said Waller Hunter. Concerning Greenhouse gasses Matteoli said "a choice must be made based on technical and scientific basis. We cannot continue with uncertainty. We can intervene only with scientific certainty". (AGI)

## **ENERGY & CLIMATE CHANGE**

### **32) SPAIN OVERTAKES U.S. FOR RENEWABLE ENERGY, ERNST & YOUNG SAYS**

Bloomberg

October 29, 2003

Internet: <http://quote.bloomberg.com/apps/news?pid=10000080&sid=a6DwRCkOaXu8>

Spain, Europe's fifth-biggest electricity market, has overtaken the U.S. as the most-favorable place to build renewable-power projects such as windfarms, consultant Ernst & Young said in a report. The U.K. was third, ahead of Germany and France, in the second Ernst & Young Renewable Energy Country Attractiveness Index, which ranks 17 countries. Spain also was named the best market for wind power, followed by the U.K., U.S., Germany and Ireland. "Spain scores highly because of a deregulated market, the Madrid government's ambitious targets for renewable energy and an attractive planning environment," Jonathan Johns, head of Ernst & Young's Renewable Energies Group, said in an e-mailed statement.

Governments are pushing to produce more power from sources such as windmills and hydroelectric plants after agreeing to reduce carbon emissions under the Kyoto protocol. Germany, Spain, the U.K. and other European countries get much of their power by burning coal or oil, which emit carbon blamed for climate change. Spain plans to generate 16 percent of its electricity from wind by 2011, up from 6 percent now. Iberdrola SA, the country's No. 2 power producer, has focused on building wind parks and gas-fired plants, betting they will be more profitable after generators start trading pollution credits in 2005. The U.K. relinquished the top spot in Ernst & Young's wind-power index as investors balk at providing the 6 billion pounds (\$10 billion) needed to more than double its share of Britain's power production to 10 percent by 2010.

Ernst & Young cited "regulatory uncertainty" as part of the reason. The government plans to review its renewables program in 2005. The U.K., with its frequently rainy weather, also lags in solar projects.

The U.K. is "well placed" to meet its renewables targets, energy minister Stephen Timms said yesterday at a conference in Glasgow. The government may give more details on its plans for wind energy before 2005, he said. Germany is Europe's biggest power market, followed by France, the U.K., Italy and Spain.

### **33) UNEP LAUNCHES NEW INITIATIVE TO SHIFT INVESTMENT TO SUSTAINABLE ENERGY**

EarthVision

October 28, 2003

Internet: [http://www.greenbiz.com/news/news\\_third.cfm?NewsID=25895](http://www.greenbiz.com/news/news_third.cfm?NewsID=25895)

TOKYO, Japan, Oct. 28, 2003 - Citing a deadly European heatwave and recent massive power failures in the United States, Scandinavia and Italy, the executive director of the U.N. Environment Program, Klaus Toepfer, said two of world's most pressing issues -- energy security and climate change -- will not be solved "by the mindset that created them." "Instead of climate change we need to create the climate for change", Mr. Toepfer told more than 600 bankers, financiers and members of the financial sector in Tokyo for the UNEP Finance Initiative Global Roundtable. In line with this year's theme "Sustaining Value," Mr. Toepfer said this change must be towards sustainable forms of energy to power the global economy.

Noting that large centralized fossil-fueled power stations supported by large centralized distribution systems will continue to be vulnerable, Mr. Toepfer launched the UNEP Sustainable Energy Finance Initiative aimed at engaging the finance sector to invest in renewable energy and energy efficiency. Although sustainable energy technologies such as solar cells and wind generators have advanced rapidly, Mr. Toepfer said the transaction costs and market uncertainty of many renewable energy projects has lead most financiers to adopt a "wait-and-see" attitude, which is compounded by an overall lack of information, experience and the tools needed to quantify, mitigate and hedge project and financial product risks.

With support from the United Nations Foundation, SEFI will help mainstream financiers overcome these barriers and consider renewable energy and energy efficiency as not just niche investments, but key components of secure energy systems based on truly sustainable forms of energy.

SEFI builds on previous efforts by UNEP's Energy Unit, which has been working with the finance sector since the late 1990s on new approaches to financing sustainable energy in developing countries. Through various programs, UNEP has implemented a variety of "financial catalysts" -- including seed financing and enterprise development, financing subsidies, guarantee facilities, and financier advisory support services. In his launch of the new initiative, Mr. Toepfer cautioned that if the billions of dollars to be invested in new energy infrastructure in the next two decades follows the fossil fuel "business as usual" mindset, the resulting serious and irreparable environmental and social harm could dramatically affect the health of human societies and economies and the ecosystems on which they depend.

Further, the economic losses for climate change, documented in a landmark 2002 UNEP Financial Initiatives study, were described by a group of major global financial corporations as "a major risk to the global economy" and noted that "worldwide economic losses due to natural disasters appear to be doubling every 10 years and, on current trends, annual losses will reach almost \$150 billion in the next decade."

"For developing countries, in particular, the reliance on fossil fuels and centralized infrastructure will not serve the vast majority of people in rural areas where the economic benefits of a modern energy system are elusive, although the environmental costs from using low quality fuels such as dung, coal and kerosene are not", says Mr. Toepfer. Nearly three billion people -- half of the world's population -- rely on these fuels for cooking and heating in simple devices producing large amounts of indoor and local air pollution, which is linked to between 4% and 5% of the global disease burden. UNF president Tim Wirth said: "In many developing countries, the energy needed to drive development while protecting human and environmental health means providing technology and services that are accessible, affordable and clean. Renewable energy and energy efficiency are poised to meet this challenge."

### **34) NEW ENERGY TAXES FOR EUROPE**

EU Politix

October 27, 2003

Internet: <http://www.eupolitix.com/EN/News/d063f8f1-44b6-4496-8c0e-de508e067d87.htm>

European governments on Monday adopted new laws on energy taxation, but with many consumer-friendly exemptions. A proposal to broaden the scope of existing energy taxation laws to include all energy products, not just mineral oils as is now the case, was unanimously adopted by ministers at Monday's environment council in Luxembourg. The directive is intended to boost competitiveness and reduce greenhouse gas emissions. But numerous exemptions included in the final proposal mean consumer petrol and diesel prices will not be affected in any member state until 2010 at the earliest. And the laws will not affect public transport or international air and sea transport. The new directive will see all other uses of coal, gas and electricity subjected to minimum tax rates across Europe. Member states will be able to offer companies tax breaks if they work to reduce their energy emissions. The new law will come into effect on January 1st 2004. The European commission is now pushing for transitional arrangements in the accession countries, due to join the EU in May 2004. "The directive will improve the functioning of the internal market and help to meet the environmental objectives of the Kyoto Protocol", said internal market commissioner Fritz Bolkestein. And in a further bid to meet Kyoto targets, renewable energy sources will not be affected

### **35) MINISTER FOR ENERGY VISITS THE UK**

Accra Mail (Accra)

October 24, 2003

Internet: <http://allafrica.com/stories/200310240817.html>

The Honourable Minister for Energy, Dr Paa Kwesi Ndoum has been invited to the United Kingdom as guest of the UK government. He will be in the UK between 23 - 24 October 2003. The purpose of the visit is to participate in the launch of the Renewable Energy and Energy Efficiency Partnership (REEEP). As part of its international efforts to combat climate change, and in particular as part of the plan on energy security for Africa from the World Summit on Sustainable Development (WSSD), the UK Foreign and Commonwealth Office has been funding the REEP. The REEEP brings together governments, business and other stakeholders with the aim of fostering international collaboration to accelerate the market growth of modern renewable and energy efficiency technologies. Its objective is to help in the removal of the policy technical, market and regulatory barriers to their development and to lower their costs so that they become affordable energy options. Ghana has played a leading role in West Africa for this initiative, and in June this year hosted a regional workshop attended by other West African countries keen to take action on renewables and energy efficiency initiatives.

### **36) INTERNATIONAL AGREEMENT SET TO PROMOTE SUSTAINABLE ENERGY**

4NI

October 23, 2003

Internet: <http://www.4ni.co.uk/nationalnews.asp?id=21554>

The UK and other countries have agreed to work together to promote the use of sustainable energy, under a new partnership launched today. The Renewable Energy and Energy Efficiency Partnership (REEEP) is a result of discussions from the World Summit on Sustainable Development in Johannesburg last year. It aims to bring together technology, expertise, political will and funding to encourage countries looking to develop their sustainable energy markets. Energy and environment ministers from countries including India, France, the US and the Philippines joined forces to launch the partnership at the Foreign Office.

Foreign Secretary Jack Straw said: "In many situations sustainable energy is economically viable now, and the challenges of climate change and possibly increasing insecurity in the supply of fossil fuels can only make it more viable in the future." Today's conference concluded that the partnership would work in three

main areas: (1) Identifying and removing policy and regulatory barriers to market development in sustainable energy at a regional level; (2) Helping to match finance with renewable and energy efficiency projects by facilitating better links between policy-makers, financiers, business and other stakeholders; and (3) Providing strategic direction as well as having an important communications role, promoting and explaining the value and benefits of renewable energy and energy efficiency to international organisations, Governments, regulators, business as well as consumers.

Environment Secretary Margaret Beckett said that a global low carbon economy was "within grasp", but countries must work together to achieve it. "Overall the REEEP provides opportunity for shaping the future direction of the energy system - in a way that meets partners social, economic and environmental objectives," she said. The UK has a key aim of a 60% cut in carbon dioxide emissions by 2050 contained in the Energy White Paper published earlier this year.

### **37) GREENS LOSE PATIENCE WITH OIL GIANTS**

The Guardian

October 23, 2003

Internet: <http://www.guardian.co.uk/business/story/0,3604,1068698,00.html>

Attempts by BP and Shell to present themselves as "enlightened" oil companies mindful of climate change and human rights are running into trouble with protests planned at a talk being given by BP boss Lord Browne tonight. Rising Tide - a loose-knit group of green activists - is organising a rowdy reception for the oil executive when he arrives to give a speech on sustainable development at the Royal Institute of British Architects in London. Friends of the Earth - a mainstream environmental organisation - confirmed that it too is re-evaluating relations with BP and Shell due to their apparent failure to turn rhetoric into action. "ExxonMobil is still the bad guy but we are getting increasingly frustrated with BP and Shell which talk about climate change but put their money into [oil and gas] developments in places such as Russia and the Middle East rather than renewable schemes. We are not going to be cosy with them because they are doing bad things," said Roger Higman, climate change campaigner at FoE.

BP has been at the forefront of efforts in recent years to create a softer image, rebranding itself "beyond petroleum" and introducing a sunburst logo in place of the traditional shield. Lord Browne has promoted transparency in payments to developing nations and talked of the need for large corporations to take a moral stance. Shell chairman Sir Phil Watts has also been keen for the Anglo-Dutch group to take a lead role in moves on corporate social responsibility. While this has generally been welcomed and set against the more hardline and traditional stance of Texas-based Exxon, the honeymoon period appears to be over.

Rising Tide has been handing out anti-BP leaflets at institutions sponsored by the company such as the British Museum, National Portrait Gallery and Tate Britain. The group, which came out of Reclaim the Streets protests, argues that BP is undermining fine words on sustainable development by involvement in the Baku-Tbilisi-Ceyhan pipeline which could be a "human rights disaster". Rising Tide claims BP invests less than 1% of its annual budget on solar and other renewable energy sources, a great deal less than they spend on advertising and public relations. "Don't be fooled by oil company public relations that the only people opposing their destructive agenda are privileged western environmentalists. In fact resistance to big oil's constant need to find new oil-rich frontiers is most determined amongst some of the world's poorest people," it said.

It wants its supporters to turn up today at RIBA in protest at Lord Browne's talk which it believes will be "top-dollar greenwash". Britain's biggest company rejected the criticism saying it had never presented itself as anything other than an oil and gas supplier but one which wanted to play its part in reducing harmful emissions. "Energy demand is growing worldwide and it is our job to meet those needs at a reasonable price. We receive \$300m a year from our solar business but there is no real commercial alternative [to hydrocarbons] so far," said a BP spokesman. The company has reduced its own CO2 emissions - 10% below where they were in 1990 - partly by concentrating on cleaner fuels such as gas rather than oil. It said it had spent two years doing environmental and social impact studies on the Baku pipeline.

## 38) DENMARK'S POWERFUL LESSONS FOR THE FUTURE

Scotsman.com

October 17, 2003

Internet: <http://www.news.scotsman.com/scitech.cfm?id=1146472003>

It is possibly the most advanced, and certainly the most efficient, power station in the world - and the statistics sound almost too good to be true. Built in two distinct phases over the past 13 years, Denmark's Avedore power station utilises a staggering 94 per cent of the energy of its fuel, compared with between 40 and 50 per cent for the average electricity producing power station in the UK. It burns coal, gas, oil, straw and wood pellets, and is equipped with a range of cutting-edge technology to reduce harmful emissions into the environment and meet Kyoto protocol targets to limit climate change. In addition, the heat produced in the process of generating power is used to heat 190,000 homes in Copenhagen through a network of pipes which run through the city.

Surprisingly, this most modern of power generating plants at Koge harbour in south Copenhagen, owes its existence to the oil crisis that gripped western nations in the 1970s. Electricity blackouts that have hit the UK, Europe and North America in recent months have made security of supply a key issue. But they have also served as a stark reminder of the energy crisis of three decades ago, when oil price hikes, brought about by Middle Eastern oil producers in the OPEC cartel, sent western industrial economies into a tailspin. Rising prices stimulated piecemeal conservation efforts in the west - and, more importantly, a determined and unprecedented exploration for new oil resources. When these were inevitably discovered, the increase in supplies and declining demand saw oil prices fall from \$35 a barrel in 1981 to \$9 a barrel in 1986.

Things then carried on as they had done prior to the crisis, and the queues at petrol stations, shared baths, power cuts and cold, lamplit suppers became just a distant, foggy memory. The chances of such crises occurring again were too slim to be taken seriously. In Denmark, however, the episode had left a more lasting impression and heralded the defining moment of the country's energy policy which is still benefiting its people today. In the aftermath of the energy crisis, members of the Folketinget (the parliament) decided every new plant built in the future must be a combined heat and power (CHP) station, and be linked in to the district heating (DH) networks that now serve the majority of Danish cities.

In addition, legal measures were implemented that allow local authorities to force building owners to connect, and remain connected, to DH. Fossil fuels were subjected to high taxation for heating and investment subsidies were offered to the utility companies to update and complete DH networks. Hans Kristoffersen, an energy policy and economics adviser with the Confederation of Danish Industries, said: "The oil crisis in the 1970s was what really led to the policy and realisation that we needed to use energy more efficiently and that led to an increased focus on DH. "We now have several hundred CHP plants, many of which really took off in the 1990s, and the concept of Avedore follows that philosophy in creating electricity as well as serving the DH network of Copenhagen, along with all the other plants."

Avedore is essentially two power station units combined: Avedore 1, built in 1990 at a cost of £190 million, and Avedore 2, operational at the end of 2001 at a cost of £380 million. The Avedore 1 unit can also cope with oil combustion to increase its flexibility, but primarily burns approximately 85 tonnes of coal every hour. It produces 250 megawatts (Mw) of electricity, serving some 400,000 households and 330 Mw of district heat for 80,000 houses. Despite burning one of the dirtiest fossil fuels, it thoroughly removes ash, sulphur, nitrogen and carbon dioxides from the flue gas, a process which produces 3.5 tonnes of gypsum and mineral products which are then used in the cement and building industries. Avedore 2 is capable of using oil and natural gas, but primarily uses wood pellets and straw.

The wood pellets are made from surplus wood from Junckers, the world's largest manufacturer of hardwood flooring. As such, they are totally CO<sub>2</sub> neutral and the 300,000 tonnes burnt annually make up half of the fuel used at Avedore 2. This is connected to a separate unit, the world's largest straw-fired boiler - that can supply the turbines with additional steam. It burns 150,000 tonnes of straw a year, accounting for 10 per cent of Avedore 2's fuel consumption, is also CO<sub>2</sub> neutral, and all the ash is returned to the fields where it was

grown for its fertiliser value. Together, each of these units supplies steam which operates large generators producing electricity for the grid. When the driving force of the steam has been utilised, it is then directed to large heat exchangers where the heat is transferred to the DH water circulating in the grid. Finally, the steam is returned to the boilers where it is supplied with new energy before the process is repeated.

Avedore 2 generates 570Mw of electricity, meeting the needs of some 800,000 households and the same amount of heat for approximately 110,000 homes. If both the heat and electricity capacities of Avedore 2 are added together, it has a similar generating capacity to Cockenzie coal-fired plant, in East Lothian, which was recently named as Britain's worst polluter in terms of carbon emissions. The main difference between the two is that most of the heat produced at Cockenzie is lost without any energy being reclaimed, vastly reducing its efficiency of fuel use. CO<sub>2</sub> emissions for Cockenzie in 2002 were 4,138,000 tonnes, compared with 949,347 for Avedore 2. Add to this the fact that the lion's share of fuel used in Avedore 2 is carbon neutral (in that it is produced from plant material which takes up carbon dioxide from the atmosphere as it grows) and it quickly becomes apparent just how inefficient Cockenzie is in comparison.

ScottishPower, which runs the plant, accepts it produces relatively high emissions of CO<sub>2</sub>, but points out that this is only because they are operated occasionally as back-up power stations rather than continually as base load stations. However, electricity produced by the Avedore plant is expensive. Although Energi E2, the company which owns the plant, will not specify the exact unit production price of electricity and heat per kilowatt hour (KWh) due to commercial sensitivity, it does give approximations. For coal it sells at £0.012 per KWh, for gas £0.023 per KWh and for oil £0.028 per KWh, giving an average of £0.021 per KWh including the biofuels price.

Compare this with nuclear and it is perhaps understandable why Britain has not gone down the road of multifuel plants and CHP - British Energy, the nuclear power generator which provides a fifth of the country's electricity, sells at £0.015 per KWh. However, although nuclear power has consistently been marketed as a cheap, and CO<sub>2</sub>-neutral, electricity-generating source since its introduction, the actual costs fail to take into account the hugely expensive process of nuclear waste management and constant subsidies thrown at the industry by government - all from the public purse. Between April and the end of August, British Energy reported unaudited operating losses of £40 million. This does not include the £3.3 billion subsidy promised by the government over the next decade for nuclear waste management, or the losses made by shareholders and bondholders as part of the restructuring, or the various other subsidies such as local authorities agreeing to delay rate payments, and various creditors freezing payments. Peter Roche, a campaigner with Greenpeace, said: "CHP, like wind power, is a classic case of British procrastination. "While we sit and ponder for years, the Danes get on and build systems which are now producing environmentally-friendly electricity, whereas we can't even decide what to do with our nuclear waste."

## **EDITORIALS**

### **39) RUSSIA NEEDS THE KYOTO TREATY by Alexey Kokorin and Peter Rutland**

IHT

October 28, 2003

Internet: <http://www.iht.com/articles/115242.html>

*Alexey Kokorin is a climate change expert at the World Wildlife Fund in Moscow. Peter Rutland is a visiting Fulbright professor at Sophia University in Tokyo.*

TOKYO: For the 1997 Kyoto treaty on global warming to come into effect, Russia's participation is crucial. So opponents of the Kyoto accord are jubilant over Russia's unexpected reluctance to ratify the treaty. Their rejoicing is premature, however. It is still probable that Moscow will eventually join the treaty. But in the meantime the fate of this key agreement is hostage to the vagaries of Russian politics. It was long assumed that Russian approval was a foregone conclusion, since Russia would be able to earn billions of dollars by selling to Western countries its unused capacity to emit greenhouse gases. But in recent months vocal opposition to Kyoto has risen in Moscow, spearheaded by Andrei Illarionov, President Vladimir Putin's

contrarian economic adviser. Illarionov argues that with the United States rejecting the treaty, there will be no buyers for Russia's "hot air," and that the exemption of India and China from the treaty gives their manufacturers an unfair edge. Moreover, ratification would be a snub to Putin's "good friend" President George W. Bush.

The Kyoto accord may well be flawed, but it has been accepted by 118 countries and is our best chance for slowing global climate change. If Kyoto collapses, international cooperation in greenhouse gas reduction will be postponed for 10 to 15 years, with potentially massive damage to vulnerable regions. The treaty needs the signatures of countries producing 55 percent of the world's greenhouse gases to come into effect. The participation of Russia, which was responsible for 17 percent of global emissions in the base year of 1990, is needed to push the treaty over this barrier.

In late September, opponents of the Kyoto accord organized a conference on global climate change in Moscow. But their arguments failed to sway the majority of participants. The critics rely on the argument that the main benefit for Russia would be its ability to sell unused emission quotas. This resonates with ordinary Russians, who fear that unscrupulous oligarchs may sell "our clean air" to the West. In reality, the Kyoto process has already moved beyond naïve ideas of emission trading, in favor of joint projects where European countries invest in the introduction of cleaner technologies in Russian plants.

Kyoto would not damage Russia's international competitiveness or crimp Putin's plan to double gross domestic product in 10 years. Russia is currently operating 30 percent below the 1990 pollution level, and the efficiency gains from new investments would keep it below its Kyoto limits for the foreseeable future. Russian businesses such as Gazprom and the electricity giant United Energy Systems see these potential benefits and are strong supporters of Kyoto ratification. Three-quarters of regional governors are in favor of Kyoto and are competing to bring European investors to their regions. Companies like Gazprom and Lukoil, which have partnerships with European energy firms, are keen to maintain a "green" image.

If the benefits to Russia are so obvious, why has such vocal opposition emerged at the 11th hour? The first reason is the self-interest of government agencies. The Ministry of Economic Trade and Development, tasked with preparing legislation for Kyoto ratification, liked the idea of emission trading, which their own ministry would manage. But they saw little benefit for their own organization in investment projects, which would be handled by the Ministry of Energy and the companies themselves. So this summer the economy ministry came up with a proposal to link Kyoto ratification to Russia's accession to the World Trade Organization. WTO countries would never agree to such linkage.

The other main source of opposition to Kyoto is companies such as Yukos and Interros, heavy polluters who do not want their operations opened to the close monitoring that Kyoto entails. Exxon Mobil, an opponent of Kyoto, is reportedly interested in buying Yukos. It is symptomatic that in a Oct. 3 press conference, Illarionov was using slides with climate change data provided by Exxon. The anti-Kyoto campaign has persuaded Putin that it would be politically dangerous to move forward with the treaty now, with elections pending for the Duma in December and for the presidency in March. But the Kyoto accord is a win-win proposition for Russia. One can expect the government and legislature to move ahead with ratification next summer, when the elections are over and they can return to considering Russia's long-term interests.

#### **40) KYOTO PROTOCOL AND THE FUTURE OF CARBON TRADING**

Financial Express

October 27, 2003

Internet: [http://www.financialexpress.com/fe\\_full\\_story.php?content\\_id=44933](http://www.financialexpress.com/fe_full_story.php?content_id=44933)

President Vladimir Putin's announcement at the world climate change conference held in Moscow late last month that Russia was still undecided about acceding to the Kyoto Protocol (KP), has undoubtedly come as a blow to those who were hoping for its quick implementation. For with Russia accounting for 17.4% of greenhouse gas emissions at 1990 levels, its accession to the treaty would have allowed it to cross the crucial goal of 55% reduction in emission levels required for it to enter into force.

While Russia's decision may or may not spell the end of the KP, it may, however, delay its implementation. For developing countries like India, which belong to the category of non-Annexe I countries, and hence are not required to cut their GHG emission levels, it could mean that their potential of earning lucrative projects through clean development mechanism projects as defined in the KP could be affected.

One of the most important CDMs that are emerging is the system of carbon trading, which allows the development of a market wherein carbon dioxide as well as carbon equivalents, ie, other greenhouse gases like methane, can be traded between participants. The participants could be countries or companies. Though the political and institutional framework for carbon trading is yet to develop, it is generally believed that a potentially large and lucrative global market for carbon trading could develop by the end of the decade.

How does the system work? Once the KP enters into force, Annexe I countries (developed countries) are required to reduce their average GHG emissions by 5% by 2008-12. A country or company wishing to reduce or meet their emission targets can do so by investing in clean projects, which would contribute towards offsetting their GHG emissions, but would also earn the investor some "credits" which would go towards a net carbon reduction. A typical CDM project would be substituting fossil fuel-based power generation with renewable energy or a project that would improve existing energy efficiency levels. Or, as in India, by investing in forestation or community tree planting projects, called "carbon sinks".

Currently, carbon trading projects take place within some countries including the US and UK, though recently some trade has also taken place between countries, as well. But the potential for inter-state trade has been estimated at around \$2 trillion over the next 10 years. However, for a full-fledged carbon trading market to develop, it would be necessary for the KP to come into force as, according to some experts, trading would only make sense if companies operated under emissions caps set by their governments.

Without an overarching regulatory mechanism, the system would at best operate informally, providing no incentive for emissions reductions. That is why Russia's accession is deemed crucial. However, according to some environmental experts, even if Moscow decides against coming aboard the KP, there is a way out. As per a clause in Article 20 of the protocol, an amendment to the treaty could be adopted by the parties to the Protocol, preferably by consensus, but if not, as a last resort by three-fourths majority vote of the parties, whereby the goal of 55% reduction in emission levels could be reduced and hence allow the treaty to come into force, which would, in turn, take the pressure off the advocates of the treaty to get the requisite countries aboard.

#### **41) THE PLANET'S POLLUTERS SHOULD BE PUT IN THE DOCK by Michael Meacher**

The Guardian

October 25, 2003

Internet: <http://www.guardian.co.uk/comment/story/0,3604,1070676,00.html>

*Michael Meacher was environment minister from 1997-2003.*

Unseen by most, our world is being transformed at an exponential rate. It is a process driven by unfettered industrial exploitation, growing technological control, soaring population growth and now climate change, the effects of which open up an apocalyptic scenario for the human race. Man's ecological footprint is now outpacing many of the natural phenomena that govern our world. Indeed, we have almost become our own geophysical cycle. Our biological carbon productivity is now exceeded only by the krill in the oceans. Our civil engineering works shift more soil each year than all the world's rivers bring to the seas. Our industrial emissions eclipse the total emissions from all the world's volcanoes. We are bringing about species loss on a scale of some of the massive natural extinctions of palaeohistory. We are altering the nitrogen cycle. Even in the remotest parts of the world, contaminants like lead and DDT appear in the food chain.

The ravages are there for all to see. Some 420 million people live in countries that no longer have enough crop land to grow their own food. Half a billion people live in regions prone to chronic drought. By 2025 that number is likely to have increased fivefold. Deserts are likely to become hotter. Marine ecosystems are at risk, including salt-water marshes, mangroves, coastal wetlands and coral reefs. In 1998, the hottest year

on record, large areas of forest burned down after prolonged drought. By 2050 it is projected that the Amazon will have died back. Shifts away from equilibrium unlock other changes that interact with the original shifts and grossly magnify their effects until the whole process spirals out of control and makes our planet uninhabitable.

All these threats are being exacerbated by population pressures. It took around 150,000 years for the world population to reach 1 billion in 1804. It took another 123 years to reach 2 billion in 1927. It then took only 14 years to reach 3 billion, a further 14 years to reach 4 billion, 13 years to reach 5 billion, and just 12 years to reach 6 billion. The UN projects global population to rise to 9.3 billion by 2050, by which time almost 90% of the world's people would live in developing countries. The pressures that this exerts on the environment is scarcely calculable.

What can be done? Clearly, what is needed is a framework of international law that permits the operation of free trade and a competitive world economy, but only within parameters strictly drawn to safeguard our planet. No such system of international environmental governance exists at present, and none is being seriously pursued. The realpolitik in the world economy is a powerfully deregulatory one. The first stirrings of resistance to this rightwing corporate hegemony are being seen in the anti-globalisation movement, but this has yet to be translated into a coherent alternative ideology. The core of a new international environmental governance needs to be the network of multilateral environmental agreements (MEAs) that have been negotiated over the past few decades to protect the global environment. There are 200 of them, covering international trade in waste, chemical pollutants, endangered species, ozone depletion, genetically modified organisms and oil spills. Their weaknesses are that they are not readily enforceable, their coverage is fragmentary and there are many policy gaps where no effective MEAs exist at all.

The most important issue is enforceability. MEA dispute settlement procedures have never been used because the multilateral nature of the issues they deal with make the provision for bilateral dispute settlement procedures largely irrelevant. What is really needed is a world environment court that would enforce a global environmental charter. The right to bring cases before such a court should not be confined to the governments of nation states, but should include public interest bodies, notably NGOs. The court should also have permanent specialist bodies to investigate damage to the global environment, whether inflicted or threatened, with powers to subpoena evidence and prosecute individuals and corporate bodies. This would only work if properly funded. However, if the fines imposed on corporate offenders were recycled, the court's investigative and legal work would quickly become self-financing.

Alongside a world environment court we also need a strengthened United Nations Environment Programme (UNEP) to promote a more sustainable world economy. There need to be three fundamental changes: adequate and reliable funding; the establishment of a forum of world environment ministers, meeting annually; and, most important, it must be put on a par with the World Trade Organisation. While the WTO can require that countries act in accordance with what it calls free trade, Unep cannot require that companies or countries act in accordance with environmental constraints. So unfettered free trade remains the dominant aim, and even where there is an MEA in place that may conflict with some aspect of trade, the WTO presses to ensure that the latter takes precedence.

UNEP should be empowered to receive reports and intelligence, give advice or warning and, where appropriate, take legal action against offenders, either in national courts or in the world environment court. The level of penalties must be on a scale to constitute a deterrent. Just as the WTO permits a retaliatory penalty to be pitched at a level related to the harm done over a breach of trading rules, so the world environment court should impose penalties that require the full remedy of damage to the environment and a fine large enough to deter a repeat offence.

The court could secure justice for the victims of environmental disasters and climate change (mainly developing countries), and apply pressure on the perpetrators (mainly industrialised countries) to avoid such catastrophes. The Red Cross has even suggested that "poor countries might seek legal compensation [from countries causing global warming] to pay for reconstruction through an international climate court".

At the national level, corporate social responsibility should mean three things. First, all companies above a certain threshold of turnover or employment should be required to report annually on their environmental and social impacts. At present, in the UK, this is voluntary. Second, fines should be jacked up. Polluting rivers, illegally discharging chemicals or dumping hazardous waste are often met by derisory fines - a few thousand pounds levied on a company with a turnover of hundreds of millions. These footling fines should be replaced by deterrent penalties related to turnover, and convicted companies or individuals should be "named and shamed" on public registers.

Third, corporate governance in the UK (and other countries) should include the principle of direct responsibility on the part of the directors for the activities of their subsidiary companies abroad. There are many examples of corporate wrongdoing overseas - the depredations of Shell in the Nigerian delta, illegal logging in south-east Asia and South America, chemical spills as at Djibouti from the loading of chromium copper arsenate in plastic containers, and Thor Chemicals' severe factory pollution of the environment in South Africa. There should be statutory provision in the headquarters country to hold the parent company to account. The approaching apocalypse is not inevitable. This broad framework of global and national governance, though it will be strongly resisted and will take years of patient and persistent negotiation to implement, would arrest the spiral of environmental decline and begin the recovery of our fragile global ecology. It is a new world order whose time has come.

## **42) CHINA'S BOOM ADDS TO GLOBAL WARMING PROBLEM**

New York Times

October 22, 2003

Internet:

<http://www.nytimes.com/2003/10/22/science/22WARM.html?ex=1067400000&en=6f6d635148309ebe&ei=5062&partner=GOOGLE>

HANJIANG, China — China's rapid economic growth is producing a surge in emissions of greenhouse gases that threatens international efforts to curb global warming, as Chinese power plants burn ever more coal while car sales soar. Until the last few months, many energy experts and environmentalists said, they had hoped that China's contribution to global warming would be limited. Its state-owned enterprises have become more efficient in their energy use as they compete in an increasingly capitalist economy, and until recently official Chinese statistics had been showing a steep drop in coal production and consumption.

But new figures from Chinese government agencies confirm what energy industry executives had suspected: that coal use has actually been climbing faster in China than practically anywhere else in the world. To the extent that global warming is caused by humanity, as many scientists believe, this is a serious problem because burning coal at a power plant releases more greenhouse gases than using oil or natural gas to generate the same amount of electricity. China's rising energy consumption complicates diplomatic efforts to limit emissions of global warming gases. The International Energy Agency in Paris predicts that the increase in greenhouse gas emissions from 2000 to 2030 in China alone will nearly equal the increase from the entire industrialized world.

China is the world's second largest emitter of such gases, after the United States. But China's per-person energy use and greenhouse gas emissions remain far below levels found in richer countries. The emissions are, for example, roughly one-eighth of those per capita in the United States. As a developing country, China is exempt from the Kyoto Protocol, the pending international agreement to limit emissions of greenhouse gases. When President Bush rejected the Kyoto Protocol two years ago, he portrayed China's exemption as a serious flaw. The protocol has been embraced by most other big nations, however, and only requires ratification by Russia to take effect. Another developing country exempt from the protocol, India, is also showing strong growth in emissions as its economy prospers. General Motors predicts that China will account for 18 percent of the world's growth in new car sales from 2002 through 2012; the United States will be responsible for 11 percent, and India 9 percent.

Official Chinese statistics had shown a decline in coal production and consumption in the late 1990's, even as the economy was growing 8 percent a year. But many Western and Chinese researchers have become suspicious of that drop over the last several years. They point out that the decline assumed that local governments had followed Beijing's instructions to close 47,000 small, unsafe mines producing low-grade coal and many heavily polluting small power plants. Yet researchers who visited mines and power plants found that they often remained open, with the output not being reported to Beijing because local administrators feared an outcry if they shut down important employers. China's National Bureau of Statistics has not revised its coal figures for the late 1990's, but its latest data show that coal consumption jumped 7.6 percent last year. A Chinese official said the bureau was likely to report a similar increase for this year. Even those figures may be low: Chinese coal industry officials have estimated that coal consumption may be rising more than 10 percent a year.

China is now the world's largest coal consumer, and its power plants are burning coal faster than its aging railroads can deliver it from domestic mines, most of which are in the north. So the country is importing coal from Australia. This steamy city of 640,000, with its deep-water port, is the main receiving point in southern China. As fishermen in wooden boats brought conical wicker baskets full of silvery, sardine-size fish ashore at dawn on a recent morning, the sun began illuminating an enormous, coal-fired power plant with a big freighter from Australia tied up next to it.

The plant is only nine years old. Zhanjiang drew its electricity over high-tension lines from other cities to the north before then. But the power plant is already inadequate for the area's needs, even though it is twice the size of a standard coal-fired plant. With blackouts frequent here for lack of power, construction has just begun on another, adjacent power plant, that one oil-fired. Other figures from the Bureau of Statistics have also shown very large increases in energy consumption lately. China's electrical power generation, the main use of coal in China, jumped 16 percent in the first eight months of this year, nearly four times as much as Western experts expected. Power generation is poised to grow swiftly in the years to come, with China's output of equipment for new power plants rising by two-thirds in a single year.

China has also become the world's fastest-growing importer of oil, with foreign purchases surging nearly a third this year, although some of those imports went into stockpiles in January and February as a precaution in case the war in Iraq disrupted shipments from the Middle East. The Chinese are using more energy in their homes, too, as China has turned into the world's largest market for television sets and one of the largest for many other electrical appliances. A 53-year-old retired saleswoman here said that for more than half her life, her only electrical appliance at home was a light bulb. She and her husband bought a black-and-white television set in 1984, then a refrigerator in 1988. Now she has an air-conditioner, which she acquired in 1998, along with two color televisions, an electric rice cooker, a radio, the refrigerator and many lights. "Only the old people do not have air-conditioning now," said the woman, Ms. Long, who, like others interviewed in this militarily important city, insisted on giving only her family name.

Environmental groups that once promoted China as a good example are now increasingly worried. "If they're seeing 6 and 7 percent growth, that is obviously a concern," said Dan Lashof, a climate change expert at the Natural Resources Defense Council, which has done several studies of Chinese energy use. But environmentalists are also loath to criticize China too strongly, partly because Chinese emissions per person are still so much lower than those in the developed world, and partly because China has been trying with some success to improve the energy efficiency of its industries. Programs like requiring electrical appliances and building designs to waste less energy show considerable promise, said Barbara Finamore, the director of the Clean China Program at the council. The central government in Beijing has had repeated difficulties in forcing provincial governments to pursue recent efficiency programs. China no longer has the central planning mandates to order improvements, but has not yet developed market-based incentives, like higher prices, to encourage people to curb their consumption of fossil fuels, Ms. Finamore said.

China's central bank is nervous that some sectors of the economy, especially luxury housing construction, are growing too fast, and it is trying to restrain them. If it succeeds, that could temper somewhat the increase in energy use. China is not alone in consuming a lot more energy, although its enormous population of roughly one and a quarter billion, and rapid economic growth mean that its increases dwarf those of any

other country in the developing world. India, for example, is also showing rapid growth in energy use. In populous countries from Indonesia to Brazil, power plants are burning more and more coal and oil to meet ever growing demand for electricity from industry and households. Even some climate experts in developing countries are conceding that their emissions need to be addressed when international talks begin in 2005 on what will follow the Kyoto agreement, which calls for industrialized nations to reduce their emissions by 2012. Considerable reluctance persists among developing countries, however, to accept the kind of specific limits prescribed for wealthy countries by the Kyoto Protocol. "There's going to be a fairly heated debate about what developing countries should do in the next round," said Rajendra K. Pachauri, an Indian engineer who is the chairman of the Intergovernmental Panel on Climate Change, a United Nations group that assesses the causes and consequences of rising temperatures.

The Chinese government is drafting a series of new economic policies, some of which will concern energy, and is expected to release them soon. Senior Chinese officials did not respond to requests for interviews over the last two months. Two fairly senior Chinese officials said in earlier, separate interviews, after President Hu Jintao succeeded Jiang Zemin in March, that an active debate was under way over the extent to which conservation should be balanced against economic growth.

Growth in Chinese coal consumption should slow somewhat in the next four years. Completion of the Three Gorges dam and five nuclear power plants will provide considerable additional electricity for China's national grid by 2007, although posing different environmental risks from coal. But Larry Metzroth, a coal and electricity specialist at the International Energy Agency, warned that with no further large hydroelectric or nuclear power projects planned in China, coal consumption "is going to pick up again after 2007."

Beijing's official New China News Agency recently predicted that China's capacity to generate electricity from coal would be almost three times as high in 2020 as it was in 2000. If China can continue to sustain 8 percent annual economic growth, then the next big growth area in greenhouse gas emissions is likely to be cars. China is already the world's fastest-growing car market, with sales up 73 percent this year.

China has just one-twentieth as many cars now as the United States, because car sales were tiny until the last three years. But a swift expansion of auto factories in China, together with rising household incomes and the growing availability of auto loans, has led to the surge.

Here in Zhanjiang, downtown streets are already clogged with cars. One of the best businesses in town seems to be a corner store in the city's old quarter, an area of tightly packed three-story homes with traditional tile roofs. The corner store sells every possible kind of fuse, tubing and wiring for electricians, and it was so busy that the store's owners barely had time to speak. "People are rewiring a lot," said Mr. Pong, the patriarch of the family that runs the store. "Or they just demolish the old and build new."

#### **43) CLIMATE CHALLENGE: POORER NATIONS MUST HANG TOGETHER by R K Pachauri**

Times of India

October 23, 2003

Internet: <http://timesofindia.indiatimes.com/cms.dll/html/uncomp/articleshow?msid=246798>

It was a little over a year ago that around 70,000 persons, including heads of states from several countries, converged on Johannesburg for the World Summit on Sustainable Development. One of the spectacles that several participants witnessed, and which was reported widely in the media worldwide, was the burning of a large pile of sugar imported from Europe. The farmers of Africa were protesting against the huge subsidies provided to agriculture in Europe, which have apparently made the whole of Africa dependent on food imports from the North, wiping out the livelihoods of farmers on that continent.

Anyone who sensed the strong sentiment behind this incident in Johannesburg would readily understand the firm stand that the developing countries took at Cancun in the WTO meeting recently. While several issues remained unresolved during this meeting, the most contentious subject on which an agreement could not be

reached related to the phasing out of subsidies on agriculture by the developed countries. Some inferences can be drawn now a month after the Cancun meeting ended inconclusively.

First, while Cancun represents a major setback, it is not necessarily the end of the road in the ongoing Doha round of negotiations under the WTO. Our commerce minister Arun Jaitley has voiced this view. This means that there is considerable work to be done, and the government of India would do well to seek the best expertise available in the country.

The second observation that could be put forward is that perhaps for the first time in a critical area of international negotiations, the major developed countries stuck together without breaking rank, despite concerted efforts to divide them. Consequently, the developed countries have learned a lesson, which may impact on the course of future negotiations under the WTO, and perhaps in other areas as well where multilateral agreements are under negotiation.

The most unfavourable outcome of Cancun could be a lasting impasse in negotiations under the WTO, which would certainly restrict international trade and continue with agricultural subsidies in the developed countries to the detriment of the developing world. Even more serious would be the implications for negotiations in other areas where multilateral action is critically overdue. Most prominent among these is the urgency of an agreement to reduce the emissions of carbon dioxide and other greenhouse gases (GHGs) under the Framework Convention on Climate Change.

As it happens, the worst impacts of climate change are likely to be felt in the developing countries, and by the poorest communities in all countries. A delay in reduction of emissions to stabilise the concentration of GHGs in the earth's atmosphere essentially implies an intensification and prolongation of the impacts of climate change, which would affect health, agriculture and availability of water in several parts of the world; sea level rise is already threatening societies in the small island states and coastal areas worldwide.

A weakening of the multilateral system under the United Nations, for instance, would in the end leave no winners. As common inhabitants of spaceship earth we need global agreements in areas where the actions of any society threaten on the welfare of any other.

A stronger affirmation of support to multilateral bodies and their effectiveness would create conditions whereby humanity may rise above narrow interests and illusory short-term gains. The alternative would be social disorder, political tensions and threats to global security. In the year 2005, negotiations are scheduled to begin for an agreement on the second commitment period of the Kyoto Protocol, beginning after 2012. And yet, it is not clear whether the Kyoto Protocol will be ratified. The outcome is entirely in the hands of Russia, which has still not revealed any decision on ratification or otherwise.

Irrespective of whether the Kyoto Protocol comes into existence or not, in the next round of negotiations growing pressures would be applied on the developing countries, particularly China, India and Brazil, to take on certain commitments for limiting the emissions of GHGs. Would the same unity among developing countries that was exhibited in Cancun remain at work in climate change negotiations also? And, if there is a complete stand-off between North and South, can we at all escape the ill-effects of climate change in every corner of the globe? By contrast, the swift action that was taken globally for implementation of the Montreal Protocol stands out as a remarkably prompt initiative in multilateral decision-making.

However, the question could be asked legitimately whether the Montreal Protocol received swift global support only because it threatened the countries of the developed world far more seriously than societies living in the tropical and sub-tropical regions. Countries like India also need substantial analysis on issue like linking trade and environment to forestall other barriers being erected by the North.

There is at least a large degree of understanding today that poverty on a wide scale anywhere in the world is a threat to the world as a whole. A fair and equitable trading regime is the most effective means to reduce poverty and an essential step in creating favourable conditions for multilateral initiatives, which must prevail to overcome the critical challenges facing the world today.

#### **44) THE END OF THE OIL AGE**

The Economist

October 23, 2003

Internet: [http://www.economist.com/opinion/displayStory.cfm?story\\_id=2155717](http://www.economist.com/opinion/displayStory.cfm?story_id=2155717)

“THE Stone Age did not end for lack of stone, and the Oil Age will end long before the world runs out of oil.” This intriguing prediction is often heard in energy circles these days. If greens were the only people to be expressing such thoughts, the notion might be dismissed as Utopian. However, the quotation is from Sheikh Zaki Yamani, a Saudi Arabian who served as his country's oil minister three decades ago. His words are rich in irony. Sheikh Yamani first came to the world's attention during the Arab oil embargo of the United States, which began three decades ago this week and whose effects altered the course of modern economic and political history. Coming from such a source, the prediction, one assumes, can hardly be a case of wishful thinking.

Yet a generation after the embargo began, the facts seem plain: the world remains addicted to Middle Eastern oil. So why is Sheikh Yamani predicting the end of the Oil Age? Because he believes that something fundamental has shifted since that first oil shock—and, sadly for countries like Saudi Arabia, he is quite right. Finally, advances in technology are beginning to offer a way for economies, especially those of the developed world, to diversify their supplies of energy and reduce their demand for petroleum, thus loosening the grip of oil and the countries that produce it. Hydrogen fuel cells and other ways of storing and distributing energy are no longer a distant dream but a foreseeable reality. Switching to these new methods will not be easy, or all that cheap, especially in transport, but with the right policies it can be made both possible and economically advantageous. Unfortunately, many of the rich world's governments—and above all the government of America, the world's biggest oil consumer—are reluctant to adopt the measures that would speed the day when the Saudis' worst fears come true.

#### **THE \$7 TRILLION HEIST**

If treating the West's addiction to oil will be costly, is it really worth doing? To be sure. Petro-addiction imposes mighty costs of its own. First, there is the political risk of relying on the Organisation of Petroleum Exporting Countries (OPEC). Oil still has a near-monopoly hold on transport. If the supply is cut off even for a few days, modern economies come to a halt, as Britain discovered when tax protestors blockaded some domestic oil depots two years ago. And despite what sound like large investments in new oil fields in Russia and elsewhere, Saudi Arabia's share of the world oil market will actually grow over the next two decades simply because it has such huge reserves of cheap oil. Geology has granted two-thirds of the world's proven oil reserves to Saudi Arabia and four of its neighbours. Because of this continuing concentration of supply, the risk of a disruption to oil flows will continue to be a threat, and may even rise.

That points to a second sort of cost. According to one American government estimate, OPEC has managed to transfer a staggering \$7 trillion in wealth from American consumers to producers over the past three decades by keeping the oil price above its true market-clearing level. That estimate does not include all manner of subsidies doled out to the fossil-fuel industry, ranging from cheap access to oil on government land to the ongoing American military presence in the Middle East.

The final disguised cost of oil is the damage it does to the environment and human health. Unlike power plants, which are few in number and so easier to regulate, cars are ubiquitous and much more difficult to control. The transport sector is a principal source of global emissions of greenhouse gases. The only long-term solution to this connected set of problems is to reduce the world's reliance on oil. Achieving this once seemed pie-in-the-sky. No longer. Hydrogen fuel cells are at last becoming a viable alternative. These are big batteries that run cleanly for as long as hydrogen is supplied, and which might power anything in or around your home—notably, your car. Hydrogen is a fuel that, like electricity, can be made from a variety of sources: fossil fuels such as coal and natural gas, renewables, even nuclear power. Every big car maker now has a fuel-cell programme, and every big oil firm is busy investigating how best to feed these new cars their hydrogen. Another alternative likely to become available in a few years is “bioethanol”. Many cars (quite a

few of them in America) already run on a mixture of petrol and ethanol. The problem here is cost. At the moment, the ethanol has to be heavily subsidised. But that might alter when biotechnology delivers new enzymes that can make ethanol efficiently from just about any sort of plant material. Then, the only limit will be how much plant material is available.

### **ALL IN GOOD TIME**

Such changes will not occur overnight. It will take a decade or two before either fuel cells or bioethanol make a significant dent in the oil economy. Still, they represent the first serious challenges to petrol in a century. If hydrogen were made from renewable energy (or if the carbon dioxide generated by making it from fossil fuels were sequestered underground), then the cars and power plants of the future would release no local pollution or greenhouse gases. Because bioethanol is made from plants, it merely “borrows” its carbon from the atmosphere, so cannot add to global warming. What is more, because hydrogen can be made in a geographically distributed fashion, by any producer anywhere, no OPEC cartel or would-be successor to it could ever manipulate the supplies or the price.

There need never be another war over energy. It all sounds very fine. What then is the best way to speed things up? Unfortunately, not through the approach currently advocated by President George Bush and America's Congress, which this week has been haggling over a new energy bill. America's leaders are still concerning themselves almost exclusively with increasing the supply of oil, rather than with curbing the demand for it while increasing the supply of alternatives. Some encouragement for new technologies is proposed, but it will have little effect: bigger subsidies for research are unlikely to spur innovation in industries with hundreds of billions of dollars in fossil-fuel assets. The best way to curb the demand for oil and promote innovation in oil alternatives is to tell the world's energy markets that the “externalities” of oil consumption—security considerations and environmental issues alike—really will influence policy from now on. And the way to do that is to impose a gradually rising gasoline tax.

By introducing a small but steadily rising tax on petrol, America would do far more to encourage innovation and improve energy security than all the drilling in Alaska's wilderness. Crucially, this need not be, and should not be, a matter of raising taxes in the aggregate. The proceeds from a gasoline tax ought to be used to finance cuts in other taxes—this, surely, is the way to present them to a sceptical electorate. Judging by the debate going on in Washington, a policy of this kind is a distant prospect. That is a great shame. Still, the pace of innovation already under way means that Sheikh Yamani's erstwhile colleagues in the oil cartel might themselves be wise to invest some of their money in the alternatives. One day, these new energy technologies will toss the OPEC cartel in the dustbin of history. It cannot happen soon enough.

### **45) AN UNNATURAL DISASTER by Andrew Simms**

Mail & Guardian (Johannesburg)

October 22, 2003

Internet: <http://allafrica.com/stories/200310230937.html>

*Andrew Simms is policy director at the New Economics Foundation*

The number of people seeking refuge as a result of environmental disaster is set to increase dramatically over the coming years. Ironically, given current attitudes, industrialised countries will resist accommodating them, and yet they will have become refugees as a direct result of the way the West lives. Global warming - more than war or political upheaval - stands to displace millions. And climate change is being driven by fossil fuel-intensive lifestyles. Though they have no official status, environmental refugees are already with us.

They are people who have been forced to flee their homes because of factors such as extreme weather, drought and desertification. There are already more of them than their "political" counterparts - 25-million, according to the last estimate, compared to about 22-million conventional refugees at their highest point in the late 1990s.

By 2050, mostly due to the likely effects of global warming, there could be more than 150-million. In 2001 170-million people were affected by disasters, 97% of which were climate-related. In the previous decade more than 100-million suffered drought and famine in Africa, a figure likely to increase with global warming. According to one study, at least five small island states are at risk of ceasing to exist. Sea-level rise could devastate the Maldives. Without real international legal protection, their people could become resented minorities in Sri Lanka, itself threatened, or India, which has its own problems. On the small South Pacific island of Tuvalu, people already have an ad hoc agreement with New Zealand to allow phased relocation.

Up to 10-million could be displaced in the Philippines, millions more in Cambodia, Thailand, Egypt, China - the list goes on. The effects of these population movements are likely to be highly destabilising globally unless they are carefully managed. But in spite of the scale of the problem, no one in the international community, including the United Nations High Commission for Refugees (UNHCR), has taken control of the problem. The UNHCR says that, institutionally, it is too poor and that environmental refugees should be dealt with at the national level. It's true that most parts of the UN system are underfunded. Ironically this, like global warming, is mostly the fault of wealthy industrialised countries for either not raising or meeting their contributions.

But without action, the countries least responsible for creating the problem stand to carry the largest share of costs associated with environmental refugees. Bangladesh, one of the world's poorest countries, expects to have about 20-million people displaced. Creating new legal obligations to accept environmental refugees would help ensure that industrialised countries accept the consequences of their choices. Refugees are defined as people forced to flee across an international border because of a well-founded fear of persecution, or fear for their lives and freedom due to, among other things, membership of a particular group. In terms of well-founded fears, drowning, homelessness or starvation would seem to fit the bill. In terms of membership of a particular group, any community or indigenous group similarly prone would also fit. Without proper environmental refugee status, the displaced could be condemned to a national economic and geographical lottery, and to the patchwork availability of resources and application of immigration policies. There is an acceptance that current national policies would not be capable of handling the scale of the problem. Environmental refugees need to be recognised and the problem managed before it manages us.

#### **46) KYOTO'S NOBLE CAUSE by Margot Wallstrom**

The Moscow Times

October 9, 2003

Internet: <http://www.themoscowtimes.com/stories/2003/10/09/006.html>

*Margot Wallstrom, European commissioner for the environment, contributed this comment to The Moscow Times.*

I would like to congratulate Russia on the successful World Climate Change Conference last week. The conference made it possible for experts from more than 100 countries to review current scientific knowledge about climate change and its severe impact on ecosystems and society. The official summary report adopted by the conference confirms that climate change is man-made and represents a major threat to sustainable development.

We should, of course, be cautious about explaining individual weather events by reference to climate change. Nonetheless, many countries have recently had a taste of the dramatic consequences that scientists predict climate change will bring. Temperatures in some Indian states reached 45 to 49 degrees Celsius, with hundreds of people dying as a result. Last May saw a record 562 tornados hitting the United States and resulting in 42 deaths -- the highest number of tornados in any one month to date. Western Europe experienced an unusual heatwave and drought during the summer months, damaging harvests, killing many elderly people and forcing choices to be made between irrigating crops and keeping power stations going. Germany had the hottest summer since records were started in 1901.

Such extreme weather would become more frequent if the climate were to change. Add to this the impact of rising sea levels on low-lying islands and coastal zones, the spread of tropical diseases and huge damage to infrastructure due to melting of the permafrost and you start to understand that climate change will have dramatic consequences for all countries. No country will be spared, and poorer countries that can least adapt to climate change will suffer the most. It would be foolhardy to ignore the writing on the wall. Science tells us what has to be done to prevent or at least mitigate climate change. Emissions of greenhouse gases have to be reduced by something in the order of 70 percent worldwide. As a first step, the Kyoto Protocol adopted under the umbrella of the United Nations requires industrialized countries to limit their emissions between 1990 and 2008 to 2012.

The European Union has committed to reducing its greenhouse gas emissions by 8 percent during this period and is taking measures to achieve this goal. 119 countries, including EU countries, have already ratified the Kyoto Protocol. To enter into force, it now has to be ratified by Russia as well, so that states representing at least 55 percent of industrialized countries' greenhouse gas emissions are party to the agreement. Since the United States has withdrawn from the Kyoto Protocol, this requires ratification by Russia. Russia, therefore, holds the key to putting into place the new international agreement to combat climate change. The EU and many other countries were pleased when Russia announced, at the World Summit on Sustainable Development in Johannesburg over a year ago, that it would ratify the Kyoto Protocol in the near future. It's worth remembering that climate change will not go away but remain with us as an issue for many years. It took several years to negotiate the Kyoto Protocol. During these negotiations, Russia's demands were fully met. The result of this effort by the international community is an ingenious treaty that combines protection of the global climate with economic opportunities. The so-called Kyoto flexible mechanisms allow parties to the protocol to trade in emission credits and to earn emission credits from projects in other industrialized or developing countries.

This will enhance international cooperation, promote investments and support the transfer of advanced technologies. The EU is keenly interested in using these mechanisms. While the quantity of emission credits to be traded or investments to be undertaken will be determined by the market, the EU and its member states are taking action to make the Kyoto flexible mechanisms attractive. We intend to open the EU's internal emissions trading scheme to credits from projects in other countries, thereby providing an additional incentive for investors. Several member states are preparing their own programs, including funds, to use the project mechanisms.

Russia is well-placed to benefit from these economic opportunities. European companies are interested in investing, for example, in the Russian energy sector and earning emission credits by doing so. This would help Russia in its efforts to modernize its economy and protect the climate at the same time. We have offered Russia a permanent dialogue on the use of Kyoto flexible mechanisms and on climate change more generally, because we appreciate Russia's central position when it comes to these issues. However, the benefits from these mechanisms will only materialize -- for Russia and for the entire world -- if Russia ratifies the Kyoto Protocol. I am convinced that Russia will ratify the protocol, given that it announced its decision at the Johannesburg Summit. It will show itself as a nation that is aware of its responsibilities toward present and future generations, and toward its own people and the life of people in other parts of the world.