

E-news update July 31 2006

In this issue:

EU

- 1.1. EU environment ministers' response to globalisation – increased eco-efficiency

ENERGY AND EMISSIONS

- 2.1. New REN21 2006 Global Status Report: "2005: Record year for investments in renewable energy"
- 2.2. France Implements New Renewable Tariffs for Solar, Wind, and Biogas
- 2.3. Incorporating Renewable Energy in Energy Performance Regulations
- 2.4. Undersea Gas Could Speed Global Warming – Study
- 2.5. Spanish Firm Claims it Can Make Oil from Plankton
- 2.6. Achieving Environmental Integration within the Energy Sector
- 2.7. Cash for coal amounts to aid for global warming
- 2.8. Potential Risks of Underground CO₂ Storage
- 2.9. Kyoto 1 Billion Tonnes Pollution Cut Seen in Doubt

CLIMATE IMPACTS

- 3.1. Amazon rainforest 'could become a desert'
- 3.2. Climate Change May Threaten Amphibians and Reptiles in Europe

CONFERENCES

- 4.1. 2nd Annual European Energy Policy Conference
- 4.2. "Adaptation to Climate Change: The European Dimension"
- 4.3. Climate Change and the European Water Dimension. Vulnerability – Impacts – Adaptation
- 4.4. International Congress to develop a comprehensive Global Vision of Forestry in the 21st Century

PUBLICATIONS

- 5.1. The EU Emissions Trading Scheme: Taking Stock and Looking Ahead

ANNOUNCEMENTS

- 6.1. Invitation for comments – JI project in Czech Republic
- 6.2. Job announcement – WWF EPO
- 6.3. Call for Major Groups' Inputs to the Reports for CSD-15
- 6.4. Opening of call for public input on guidance on criteria for baseline setting and monitoring
- 6.5. Powerpoints of UNEP's Atlas Released for Educational Purposes

EU

- 1.1. EU environment ministers' response to globalisation – increased eco-efficiency

15 July 2006

Europe's environment ministers believe that new forms of environmental policy are needed to meet challenges related to globalisation, and ensure that everyone around the world plays by the same rules on a level playing field. This new emphasis was outlined today at an informal meeting of EU environment ministers currently being held in the Finnish city of Turku, involving ministers from 24 countries. Finland's Minister of the Environment Jan-Erik Enestam led a discussion about Finland's initiative for a new generation of environmental policy, which stresses the importance of eco-efficiency in resolving global environmental problems.

The environment ministers emphasised that globalisation highlights the need to use natural resources sparingly, and promote more eco-efficient production and consumption patterns. Without such developments it will be impossible to curb climate change and halt the ongoing decline in biodiversity. Using natural resources more sustainably can improve EU countries' competitiveness in global markets and reduce Europe's dependence on imported raw materials, while also reducing harmful environmental impacts.

The EU action plan on sustainable consumption and production will play a key role in shaping future trends. According to Enestam, one product of the action plan should be an EU eco-efficiency strategy

based on targets on material and energy efficiency set through dialogues involving key actors. It is also important to promote environmentally friendly public sector purchasing policies and green technologies, while ensuring that sufficient funding is channelled into research on eco-innovations. Financial instruments and incentives will play a major role in improving the eco-efficiency of production, and in promoting more sustainable consumption patterns. According to Mr Enestam, Europe's environment ministers expect the European Commission to promptly issue a green paper on the use of market-based and financial instruments in environmental policies.

"It is crucial in this context to find new ways to promote the adoption of financial instruments. The ministers are looking to the Commission for a swift initiative on this issue, involving new financial instruments that will also ensure that the EU can become the world's most competitive economy," says Enestam. "It's equally important to abolish any subsidies that lead to harmful environmental impacts."

The need to begin preparing for a major renewal of EU environmental policy adopting a longer-term perspective was also stressed at the Turku meeting. This new policy would be part of a wider vision of a sustainable Europe, which the European Council has recently urged the Commission and member states to build. Another key objective is to integrate environmental considerations into the EU's trade and development co-operation policies.

New forums are needed to enable countries to work together to find ways to resolve critical global environmental problems. Important objectives in this context include the establishment of a United Nations Environmental Organisation (UNEO) and a Panel on Natural Resources to operate in the same way as the UN Intergovernmental Panel on Climate Change.

The conclusions of the Turku meeting will be widely applied within the EU this autumn, particularly in the interim evaluation of the EU's 6th Environmental Action Programme, and in relation to the forthcoming EU natural resource strategy and biodiversity communication.

ENERGY AND EMISSIONS

2.1. New REN21 2006 Global Status Report: "2005: Record year for investments in renewable energy" 18 July 2006

Up from USD 30 billion in 2004 to USD 38 billion last year, 2005 was a record year for investment in the renewable energy sector.

According to REN21, the Renewable Energy Policy Network, wind power capacity grew by 24% in 2005 to reach 59 GW, and ten countries added over 300 MW of wind power, up from five countries that had done so in 2004.

These findings and more are contained in REN21's 2006 update to its Global Status Report showing trends in renewable investment and policies worldwide.

The 2006 update is, like the first Global Status Report of 2005, a collaborative effort involving more than 100 researchers worldwide in a REN21 issue group with Eric Martinot as leading author, who presented the results in New Zealand today. The definitive version will be available on www.ren21.net soon.

Other findings in the 2006 update include:

- Biomass power production has increased by 50-100% in several countries.
- The US produced record amounts of ethanol fuel for cars, and three new EU countries became ethanol producers.
- Biodiesel production grew by 85% in 2005 and nine new EU countries became producers.
- Grid-tied solar power grew by 55%, led by Germany, now with more than 200,000 solar rooftops.
- Solar hot water capacity grew by 23% in China and reached record levels across Europe.

The renewable industry has captured investors' attention in the past year more than ever before.

"Renewables are capturing increased attention of businesses and policy-makers around the world" said Mohamed El-Ashry, chairman of the REN21 Steering Committee.

The REN21 report estimates that at least 85 renewable energy companies or divisions have market valuations greater than USD 40 million, up from 60 companies or divisions in 2004. The estimated total market valuation of companies in this category is USD 50 billion, double the 2004 estimate, as several high-profile initial public offerings have recently taken place. The solar PV industry invested record amounts in new plant and equipment (about USD 6 billion), as did the biofuels industry (more than USD 1 billion).

Many new policies to support renewable energy were adopted over the past year, and many more were extended, revised, or discussed. Not only the EU and US were active, but more than 16 developing countries as well, including Brazil, China, Egypt, India, Mexico, Thailand, and Uganda. Most notable was that a number of countries dramatically stepped up targets and mandates for biofuels - ethanol and biodiesel mixed with conventional fuels. The number of countries with so-called "feed-in" policies for the purchase of power from renewable sources increased to 41, and the number of countries with future targets for the share of energy from renewables increased to at least 49. Initiatives for grid-tied solar power multiplied, including new initiatives in the EU, California and other US states, Australia, and China.

2.2. France Implements New Renewable Tariffs for Solar, Wind, and Biogas

26 July 2006, By Paul Gipe

In a major breakthrough, the announcement doubles payment for solar energy and biogas, putting France on a par with Germany.

The French Minister for Industry, Finance, and Economics today has issued new tariffs for solar, wind, biogas and geothermal energy.

The new tariffs are the result of the regularly scheduled review of the French program that pays for electricity generated by renewable sources of energy.

France has lagged behind other European countries, notably Germany, in developing renewable energy. Previous French tariffs for solar energy were especially noncompetitive with those in Germany and Spain.

The French program of Advanced Renewable Tariffs differentiates the price paid per kilowatt-hour by technology, by location or size of the installation, and the number of years the generator has been in service.

The new tariffs pay Euro 0.55/kWh for building-integrated solar photovoltaics, putting France on a par with world leader Germany. (See below for currency conversion.) France also doubled payment for electricity from rooftop solar panels to Euro 0.30/kWh and provides a capital 50% subsidy on the cost of the solar panels and other equipment.

The regional government of Rhone-Alps in southeastern France also provides an additional payment of Euro 0.30/kWh, bringing total payment for rooftop solar to Euro 0.60/kWh, more than that paid in Germany.

Industry analysts expect the new solar tariffs to result in a boom of new solar construction.

While the new tariffs did not increase the base rate for on shore wind energy in continental France, they doubled the amount of time that wind projects receive the premium payment from five to ten years. This significantly improves the profitability of wind turbines at moderately windy and windy sites.

The new tariffs also substantially raised the tariffs for off shore wind turbines to Euro 0.13/kWh and also extended the premium period from five to ten years.

Politicians didn't forget to include French farmers. Tariffs for biogas were more than doubled to Euro 10.3/kWh for plants less than 150 kW. As in solar photovoltaics, this tariff places France in league with Germany.

France has a very ambitious target of 12,500 MW of wind energy installed on land by 2010. This year France will pass its first 1,000 MW of wind projects. There are nearly 3,000 MW of wind projects in the queue for installation under the previous French wind tariffs.

Photovoltaics: <http://www.legifrance.gouv.fr/WAspad/UnTexteDeJorf?numjo=INDI0607867A>.

Wind: <http://www.legifrance.gouv.fr/WAspad/UnTexteDeJorf?numjo=INDI0607865A>.

Biogas: <http://www.legifrance.gouv.fr/WAspad/UnTexteDeJorf?numjo=INDI0607869A>.

2.3. Incorporating Renewable Energy in Energy Performance Regulations

In the context of the Kyoto Protocol and the EC's commitment to cut CO2 emissions, the improvement of energy efficiency and rational use of energy and the promotion of new and renewable energy sources are considered as cornerstones of the EU energy policy objectives. The recent EU Directive 2002/91/EC on energy performance of buildings (EPBD) will urge member states to develop and design energy performance regulations to improve rational use of energy in new housing. The directive specifically mentions that the positive influence of renewable energy should be taken into

account in energy performance regulations. Nevertheless, the potential of stimulating renewable energy sources (RES) through building regulation has not yet been explored.

A recent study has explored the possibilities of combining the introduction of the new or revised energy performance regulations under the EC Energy Performance of Buildings Directive (EPBD) with incentives to encourage the use of renewable energy. It reflects the results of the EU-funded research project Build-On-RES1 that aimed at developing a methodological and contextual framework for the maximum incorporation of renewable energy sources (RES) in a European Model Building Code for Energy Performance in Housing. For this research, an inventory was made of energy regulations in five member states that have experience with energy performance regulations: the Netherlands, Great Britain, Denmark, Belgium and France.

Since all EU member states already have specific RES policies, it should be possible to create synergy between renewable energy policies and energy performance regulations. The study makes some recommendations for policy makers to encourage the use of RES within the European Energy Performance Building Code. These recommendations include:

The energy performance calculation (energy use calculation) should take into consideration RES equipment as an option among many possible installations without requiring additional effort, in order to ensure that equal attention is paid to renewable and conventional energy systems.

The method for calculating the energy performance in buildings should take into account future renewable energy innovations.

The energy performance output of a building should express explicitly the share of renewable energy in energy consumption.

Authorities could make it compulsory to meet a specific percentage of a buildings' energy needs with renewable energy or could give preferential treatment to renewable energy applications.

Instead of subsidizing RES equipment, it would be more effective to subsidize RES performance (e.g. subsidizing the percentage of RES in the total estimated energy consumption).

A RES label combined with the energy performance rating could be relatively easy to introduce, and would help to provide easily understandable information about RES. It could be issued for buildings where RES contribute to a certain percentage of the total estimated energy consumption.

Overall, the current study showed that the introduction of energy performance regulations under the EU Directive on energy performance of buildings offers a perfect opportunity to introduce specific measures to promote renewable energy resources.

Source: Milou Beerepoot (2006) « Policy profile: encouraging use of renewable energy by implementing the Energy Performance of Building Directive», European environment 16 (3): 167-177.

Contact: M.Beerepoot@otb.tudelft.nl

2.4. Undersea Gas Could Speed Global Warming – Study

21 July 2006, Reuters

If the world continues to get warmer, vast amounts of methane gas trapped in ice under the sea could belch up and worsen climate change, according to a study.

"We may have less time than we think to do something (about the prospect of global warming)," Dr. Ira Leifer, a marine scientist at University of California Santa Barbara, said in an interview.

Leifer is the main author of a study that looks at how "peak blowouts" of melting undersea formations called methane hydrates could release the potent greenhouse gas into the atmosphere. The study was published Thursday in *Global Biogeochemical Cycles*, a climate science publication.

The distribution of methane hydrates throughout the world is so vast that energy companies hope one day to tap the resource. The US Department of Energy estimates that such formations could harbor as much as 200,000 trillion cubic feet of natural gas.

Hydrate formations exist under hundreds of meters of water in places like the Gulf of Mexico and closer to the surface in permafrost areas of the Arctic.

Methane, the main component of the fossil fuel natural gas, has two faces. When burned it releases less carbon dioxide, the main greenhouse gas that scientists believe are warming the earth, than any other fossil fuel.

But if it escapes to the atmosphere without being burned, it can trap heat rapidly because it is a greenhouse gas at least 20 times stronger than carbon dioxide.

The study measured the amount of methane that escaped to the atmosphere from a peak blowout from small volcanoes on the ocean floor off of California. It found that virtually all of the methane

escaping from the deep water reached the atmosphere, countering some theories that methane seeps out in tiny bubbles that harmlessly dissolve in the ocean.

Leifer said rising temperatures could warm the oceans, creating a feedback loop in which warm temperatures make global warming even worse.

Most scientists believe emissions of heat-trapping gases from cars, industrial sources and the burning of forests are warming the earth. NASA has said that 2005 was the warmest year at the earth's surface since records began in the 1860s.

While deep ocean temperatures have been more stable, currents of gradually rising sea-surface temperatures could eventually warm the ocean's depths and release gas, said Leifer. "If you expose a hydrate to water that's warmer than normal it starts destabilizing," he said.

"I have no doubt that if we warm the atmosphere too much the oceans will follow and will cause the problem to become severe at some point."

Story by Timothy Gardner

2.5. Spanish Firm Claims it Can Make Oil from Plankton

21 July 2006, Planet Ark Reuters

A Spanish company claimed on Thursday to have developed a method of breeding plankton and turning the marine plants into oil, providing a potentially inexhaustible source of clean fuel.

Vehicle tests are some time away because the company, Bio Fuel Systems, has not yet tried refining the dark green coloured crude oil phytoplankton turn into, a spokesman said.

Bio Fuel Systems is a wholly Spanish firm, formed this year in eastern Spain after three years of research by scientists and engineers connected with the University of Alicante.

"Bio Fuel Systems has developed a process that converts energy, based on three elements: solar energy, photosynthesis and an electromagnetic field," it said in a press dossier.

"That process allows us to obtain biopetroleum, equivalent to that of fossil origin."

Phytoplankton, like other plants, absorb carbon dioxide as they grow. Scientists have examined the possibility of stimulating growth of the single cell plants as a means of reducing the amount of CO₂ in the atmosphere.

CO₂, liberated by burning fossil fuels like coal, oil and gas, is widely held responsible for global warming.

Bio Fuel Systems said its new fuel would reduce CO₂, was free of other contaminants like sulphur dioxide and would be cheaper than fossil oil is now.

"Our system of bioconversion is about 400 times more productive than any other plant-based system producing oil or ethanol," it said, referring to currently available biofuels made from plants like maize or oilseeds.

Bio Fuel Systems is working with scientists at the University of Alicante on the project. It has drawn up industrial plans to make the fuel and says it will be able to start continuous production in 14 to 18 months.

2.6. Achieving Environmental Integration within the Energy Sector

The production and consumption of energy, including heat and electricity production, oil refining and final user consumption in households, services, industries and transport, place considerable pressures on the environment. These pressures include the emissions of greenhouse gases and air pollutants, waste generation, land use, degradation of ecosystems and oil spills. The proposal of the European Council presented in March 2006 for an energy policy in Europe highlights the need to achieve a balance between the goals of security and competitiveness of energy supply with environmental sustainability.

A recent report by the European Environment Agency has examined the progress towards the integration of environmental concerns into the energy sector in Europe. The authors of the report used a set of indicators to measure trends in the energy sector covering the period 1990 to 2003.

The report identifies six major trends in the energy sectors:

In general, energy-related greenhouse gas emissions were reduced by 2.6% between 1990 and 2003, but they have risen slightly in recent years, mainly due to higher electricity production from coal-fired power plants. In addition, there is a long-term trend of growing transport emissions. Further substantial reductions are required in order to meet long-term emission reduction targets.

Energy-related emissions of air pollutants such as acidifying substances, tropospheric ozone precursors (volatile organic compounds and nitrogen oxides) and particles decreased by 56%, 41% and 47% respectively between 1990 and 2003. The major drivers of this decrease were the use of abatement techniques, improvements in energy efficiency and fuel switching from coal to natural gas. In spite of the decline in air pollutants, poor air quality continues to have adverse effects on health and ecosystems. Further emission reductions are therefore required.

Fossil fuel continues to dominate energy consumption but different abatement measures and fuel switching have helped to reduce environmental pressure.

Energy consumption continues to grow in Europe, by approximately 11.6% between 1990 and 2003, making it more difficult to reduce energy-related environmental pressures. The major drivers of this increase were rising personal incomes and changes in lifestyle with consequent higher expectations for transport and comfort levels. Electricity consumption grew more than twice as fast as overall final energy consumption, due to its attractiveness and flexibility in end uses.

The overall share of renewables in total energy and electricity consumption remains low despite large increases for some renewable sources. Significant further expansion will be needed to meet the EU indicative targets of a 12 % share in total energy consumption by 2010.

Most energy prices have been increasing since around 2000, following significant reductions during the 1990s, while tax levels increased throughout the whole period. Nevertheless, tax levels generally remain below the estimated environmental external costs.

The report concludes that, in the context of rising oil and gas prices and increasing concerns about energy security, it is important to ensure that environmental sustainability is treated on equal terms with energy security and competitiveness. Key elements to simultaneously achieve EU energy policy objectives and the integration of environmental concerns in the energy sectors are the reduction of energy consumption and the introduction of technologies with low environmental impact. Further action is thus required to achieve current short and long term policy targets. This can be supported by providing the right price signals to investors and consumers through a stable long-term framework, taking into account environmental requirements and the removal of harmful subsidies.

For more information: http://reports.eea.europa.eu/eea_report_2006_8/en (2006- p.56).

2.7. Cash for coal amounts to aid for global warming

19 July 2006, Greenpeace press release

Greenpeace condemned today's European Commission approval of a German plan to grant €2.5 billion in state aid to its coal industry for 2006.

"Coming on the hottest day of 2006 so far, this approval for a cash lifeline to the most carbon dioxide-intensive energy source is an insult to the thousands of people who are already suffering from the impacts of man-made climate change," said Greenpeace energy campaigner Mark Johnston.

He added: "The Commission's green light for this German coal subsidy makes a mockery of Europe's attempts to protect the climate, promote renewable energy sources and cut subsidies to dirty energy. The Commission must stop acquiescing to the coal lobby and take the lead in ensuring that such subsidies are scrapped."

Today's aid decision covers the first phase of a five-year restructuring plan for the German coal sector approved by the Commission in 2005.

Total subsidies to EU coal producers in the last year for which full data is available, 2004, were €5.6 billion, according to the Commission's 'State Aid Scoreboard'. After Germany, the highest subsidies are in Spain and Poland.

The Commission has begun a review of the rules on coal state aid and expects to issue a report by the end of 2006.

Greenpeace is asking the Commission to confirm that the current rules, which form the basis for granting state aid to the coal industry and which expire in 2010, will not be renewed.

2.8. Potential Risks of Underground CO2 Storage

The Kyoto Protocol requires the EC (consisting of the 15 Member States before May 2004) to reduce greenhouse gas emissions by 8% below 1990 levels by 2008-2012. There are different technical and management options that could help to achieve this target, including an increased use of renewable and nuclear energy or an increase in forested areas that work as CO2 sinks. One of the possible solutions is cleaner use of fossil fuels by capturing and storing the CO2 generated during the

production and consumption of fossil fuels in geological reservoirs underground. Our current technical capacity is sufficient to store worldwide emissions from several decades up to several hundred years. Nevertheless, the key factor affecting the implementation of such a solution are the risks associated with underground CO₂ storage.

A new study has overviewed current knowledge regarding the health, safety and environmental risks of CO₂ capture and storage underground and has assessed the gaps in knowledge in this regard. The authors used recent scientific literature and information gained from research projects, supported by expert consultation.

The major findings of the current analysis were:

Risks caused by failures in surface installations are well understood and can be minimised by applying risk abatement technologies and safety measures.

The risk associated with the storage of CO₂ underground itself (CO₂ and methane linkage, seismicity, ground movements and displacements) is less well understood.

The lack of knowledge and data to properly quantify the processes controlling/causing risks is partially due to the fact that this mitigation option is relatively new. Another complicating factor is that underground storage has long-term effects that are difficult to assess by means of injection operations or laboratory experiments.

One of the main issues to be further studied is the leakage of CO₂ from the geological reservoir. In particular the processes that control leakage through wells, faults and fractures need to be objectives for future research projects in order to assess leakage rates for various geological reservoirs.

The effects of elevated concentrations of CO₂ on terrestrial animals and plants are well known, but the possible impacts on marine ecosystems need further research.

Risks are strongly dependant on specific reservoir and site conditions (ecosystems, onshore/offshore, presence of water resources, etc.). This makes recommendable the assessment and monitoring of a variety of pilot and demonstration storage projects in order to better understand the site specific nature of risks.

The current study provides new insights regarding CO₂ capture and storage underground that may be very useful for policy makers as they prioritise research, set standards and define strategies in this area.

Source: Kay Damen, André Faaij, and Wim Turkenburg (2006) « Health, Safety and Environmental Risks of Underground CO₂ Storage - Overview of Mechanisms and Current Knowledge », *Climatic Change* 74 (1-3): 289 – 318.

Contact: k.damen@chem.uu.nl

2.9. Kyoto 1 Billion Tonnes Pollution Cut Seen in Doubt

17 July 2006, Planet Ark reuters

The Kyoto pact's novel system for letting rich countries buy pollution cuts from poor ones is unlikely to achieve a UN forecast of axing more than 1 billion tonnes of greenhouse gases, some firms implementing the scheme say.

They downplay the fears of some analysts that the system will so far exceed this forecast in 2008-12 that the carbon credits will become too abundant and their price will collapse.

"My guess is only 30 to 50 percent of that (1 billion) will ever see the light of day," said Bill Haskell, chief executive of AgCert, which expects to generate some 50 million tonnes of carbon credits a year by 2012, alongside a joint venture with US utility AES Corp.

But supply and demand is so untested that some of the Western project development firms, which advise companies in developing countries on how to save energy and sell credits under the scheme, feel they cannot altogether rule out a glut.

Kyoto obliges some 35 rich countries to make an overall cut in greenhouse gas emissions between 2008-12, as a first step towards curbing the worst effects of climate change.

It allows states that are behind in cutting their own pollution to compensate by investing in clean energy projects in poor countries and thereby acquire the carbon credits they need.

The one billion tonnes estimate is the UN's forecast of pollution cuts through 2012 from a pipeline of projects under Kyoto's Clean Development Mechanism (CDM), most of which have not yet cleared UN approval procedures.

Tom Stoner, chief executive of project developers Econergy, agreed that future credit estimates should be treated with caution while Seb Walhain, director of environmental markets at Fortis Bank considered 500-600 million tonnes more realistic.

Oversupply is seen by some as a possibility, partly because projects develop carbon credits by cutting pollution against a base scenario. The more they produce of their core product, such as cement or power, the more credits they generate.

"There's always a potential for over-supply... we're not losing sleep over that yet," said Jack MacDonald, chief financial officer at EcoSecurities.

EcoSecurities itself is aiming to generate 500 million tonnes of credits by end-2012, while it would be "comfortable" with some 270 million tonnes-plus, MacDonald said.

Boom

Future demand is also opaque. It is booming now as banks, hedge funds and others stock-pile credits for future trade, project developers say.

But long-term demand depends on variables such as how far developed countries will pollute and fall behind their Kyoto goals. These are influenced by factors that are hard to predict, ranging from economic growth through oil prices to the weather.

"It's very difficult for us to predict demand, there are so many inter-linking factors," said Tristan Fischer, chief executive of Camco International, which currently has projects to generate some 100 million tonnes in credits through 2012.

Demand also depends on political will. The European Union set its emissions caps too generously last year, for fear of harming the competitiveness of its firms, resulting in a drop in prices under its own internal carbon trading scheme.

Meanwhile Canada has said it will miss its Kyoto target and the United States, the world's biggest polluter, pulled out.

But sellers of carbon credits said demand in those countries was likely to be spurred by public support for "green" issues and by proposed carbon markets.

"I'm not losing a massive amount of sleep (over the EU), we've got business in North America," said Haskell.

But carbon prices in the prospective market in the US north-east states could be no more than US\$2 - \$7 a tonne, said Abyd Karmali, senior vice-president at ICF Consulting. This compares to current CDM prices seen in a 12 to 17 euros (US\$15.2-\$21.6) range.

Karmali also expected low CDM prices, which he saw potentially swamped by Russia off-loading hundreds of millions of tonnes of so-called "hot air" -- a huge surplus of emissions cuts it has because of its post-communist industrial collapse.

But even if there were a carbon price crash, sellers see profits in the system.

"CDM will still function at 10 euros from a cost perspective," said Econergy's Stoner. "(But) We absolutely see the potential for prices that are better than that."

AgCert's Haskell saw CER prices as low as 5 euros still yielding a margin, as did EcoSecurities' MacDonald.

Story by Gerard Wynn

CLIMATE IMPACTS

3.1. Amazon rainforest 'could become a desert'

23 July 2006, Independent London

By Geoffrey Lean in Manaus and Fred Pearce

The vast Amazon rainforest is on the brink of being turned into desert, with catastrophic consequences for the world's climate, alarming research suggests. And the process, which would be irreversible, could begin as early as next year.

Studies by the blue-chip Woods Hole Research Centre, carried out in Amazonia, have concluded that the forest cannot withstand more than two consecutive years of drought without breaking down.

Scientists say that this would spread drought into the northern hemisphere, including Britain, and could massively accelerate global warming with incalculable consequences, spinning out of control, a process that might end in the world becoming uninhabitable.

The alarming news comes in the midst of a heatwave gripping Britain and much of Europe and the United States. Temperatures in the south of England reached a July record of 36.3C on Tuesday. And it comes hard on the heels of a warning by an international group of experts, led by the Eastern Orthodox " pope" Bartholomew, last week that the forest is rapidly approaching a " tipping point" that would lead to its total destruction.

The research carried out by the Massachusetts-based Woods Hole centre in Santarem on the Amazon river has taken even the scientists conducting it by surprise. When Dr Dan Nepstead started the experiment in 2002 by covering a chunk of rainforest the size of a football pitch with plastic panels to see how it would cope without rain he surrounded it with sophisticated sensors, expecting to record only minor changes.

The trees managed the first year of drought without difficulty. In the second year, they sunk their roots deeper to find moisture, but survived. But in year three, they started dying. Beginning with the tallest the trees started to come crashing down, exposing the forest floor to the drying sun.

By the end of the year the trees had released more than two-thirds of the carbon dioxide they have stored during their lives, helping to act as a break on global warming. Instead they began accelerating the climate change.

As we report today on pages 28 and 29, the Amazon now appears to be entering its second successive year of drought, raising the possibility that it could start dying next year. The immense forest contains 90 billion tons of carbon, enough in itself to increase the rate of global warming by 50 per cent.

Dr Nepstead expects "mega-fires" rapidly to sweep across the drying jungle. With the trees gone, the soil will bake in the sun and the rainforest could become desert.

Dr Deborah Clark from the University of Missouri, one of the world's top forest ecologists, says the research shows that "the lock has broken" on the Amazon ecosystem. She adds: the Amazon is "headed in a terrible direction".

3.2. Climate Change May Threaten Amphibians and Reptiles in Europe

Recent declines in and extinction of amphibian populations have been reported in many parts of the world over the past decades. Climate change has been suggested as one of the main causes to explain such declines. The effect of global warming on reptiles remains still relatively unexplored.

A recent study, carried out under the EU-funded research project ALARM1, has analysed the possible effects of climate change on reptile and amphibian species distribution in Europe. They modelled the distribution of 42 amphibian and 66 reptile species in Europe under four climate change scenarios proposed by the Intergovernmental Panel on Climate Change for 2050, using four different modelling techniques. Different assumptions regarding species dispersal ability and evolutionary and environmental factors were considered in the analysis.

The researchers found that increases in temperature are not likely to constitute a major threat to amphibian and reptile species in Europe. Indeed, a global cooling scenario would be much worse.

However, the results showed that the response of amphibians and reptiles to climate change is highly dependent on their ability to disperse and colonise new habitats. In a scenario of unlimited dispersal, a great proportion of the amphibian and reptile species would be expected to expand their distribution in relation to the present. This is because warmer temperatures in the cooler northern habitats create opportunities for colonisation of new suitable habitats. On the contrary, if the species were unable to disperse, most of them would be expected to suffer considerable decline. Current levels of habitat fragmentation and degradation may reduce the inherent low dispersal ability of reptiles and amphibians.

But the fate of amphibians and reptiles may also be affected by availability of water, warn the researchers. The ability of species to cope with climate change may be offset by the predicted decrease in the availability of water. This is particularly true for amphibians. According to this study, species declines are projected to occur mainly in the south-west of Europe, in particular in the Iberian Peninsula, where the dry conditions are expected to increase. This is worrying because changes in amphibian and reptile populations of Portugal, Spain and France would affect 62% of the amphibian and reptile species present in Europe.

The current study provides new insights regarding the possible effects of climate change on European biodiversity, in particular amphibian and reptile species. The European Commission adopted in May 2006 a Communication which sets out an ambitious policy approach to halting the loss of biodiversity by 2010. In particular it identifies biodiversity and climate change as one of the four key policy areas.

Source: Miguel B. Araújo, Wilfried Thuiller and Richard G. Pearson (2006) « Climate warming and the decline of amphibians and reptiles in Europe;», *Journal of Biogeography*, doi: 10.1111/j.1365-2699.2006.01482.x. For free access click here.

Contact: maraujo@mncn.csic.es

CONFERENCES

4.1. 2nd Annual European Energy Policy Conference

The programme for the 2nd Annual European Energy Policy Conference which will take place on the 16th and 17th of October in Brussels, is now available online. In addition, the conference brochure is available for download. Please follow the links below for further information.

- View the online conference programme -
http://www.epsilonevents.com/eps_detsubevt.asp?id=26&subevtid=102&type=current.
 - Download the conference brochure (including fax back form) -
<http://www.epsilonevents.com/pdf/2ndEEPC2006Large.pdf>.
-

4.2. "Adaptation to Climate Change: The European Dimension"

European Climate Change Programme "Working Group II " Impacts and Adaptation:

This event promises to be a high level conference with the presence of Commissioners in order to launch the adaptation Green Paper.

Further details on this conference will follow and formal registration will become available in September. In the meantime please mark your agenda:

Conference 27th November 2006, Brussels Charlemagne Building.

Please send any question you might have regarding the programme to Alyssa Gilbert: +44(0) 20 76188263.

4.3. Time to Adapt: Climate Change and the European Water Dimension. Vulnerability – Impacts – Adaptation

12 to 14 February 2007, Berlin, Germany.

As part of Germany's activities during its EU presidency, the Federal Ministry for the Environment will host an international symposium titled "Time to Adapt - Climate Change and the European Water Dimension" from 12 to 14 February 2007 in Berlin. The initiative is supported by the relevant services of the European Commission.

The Symposium aims to provide a platform for representatives from governments, science and research, stakeholder groups and non-governmental organisations to discuss the impacts of climate change on water resources. In addition, adaptation strategies for water management and water dependent sectors, in particular agriculture, energy, inland navigation and tourism, will be evaluated.

The conference is organised by Ecologic, Institute for International and European Environmental Policy (www.ecologic.de), in cooperation with the Potsdam Institute for Climate Impact Research (www.pik-potsdam.de).

For further information please visit the conference website at: <http://www.climate-water-adaptation-berlin2007.org/index.htm>.

4.4. International Congress to develop a comprehensive Global Vision of Forestry in the 21st Century

You will be happy to know that the Faculty of Forestry, University of Toronto, will be celebrating its 100 years in 2007. We believe that the next 100 years will be quite different than the last 100 years. The 21st century will be probably known as the era of environmentalism, natural capitalism, scientific integration, globalization, and participatory governance. Naturally, in this new era, the conceptual framework of forest resource management will be different than its existing framework. Hence, the Faculty of Forestry, on the occasion of its Centennial Celebrations, has taken up a challenge to develop a comprehensive Global Vision of Forestry in the 21st Century. The vision will be developed through an International Congress on this subject, and the Congress will be held on September 30-October 3, 2007 in Toronto, Canada.

The Congress organisers would like to have inputs from every one who is concerned with the future state of our global forests, environment, and society. The organisers aim to bring invited speakers, poster presenters, and participants from all interested groups such as policy makers, forest managers, judges and legal experts, Aboriginal people, scientists, and forestry experts from forest industry, and international and non-government organizations.

"First Announcement and Call for Abstracts" has been issued, and it is available at website: http://www.forestry.utoronto.ca/centennial/int_congress.htm.
The last date for submission of abstracts is Nov 30, 2006.

PUBLICATIONS

5.1. The EU Emissions Trading Scheme: Taking Stock and Looking Ahead

CEPS is pleased to announce the publication of a new European Climate Platform Report (ECP) report entitled: "The EU Emissions Trading Scheme: Taking Stock and Looking Ahead". The report covers the implementation of the EU ETS undertaken to date, its linkages with investment decisions, the 2006 review and impacts on global carbon markets. The executive summary contains a number of concrete and operational policy recommendations for improving the EU ETS. The recommendations are primarily addressed to EU policy-makers but some of them may also be relevant to other key players influencing the functioning of the EU ETS. The main report delves more deeply into the key issues and provides the background for many of the policy recommendations. To download the report please visit the CEPS website: http://shop.ceps.be/BookDetail.php?item_id=1360.

The report is a revised version of a background paper on the same topic that was presented and discussed in an ECP seminar on strategic issues in the EU ETS Review, held in Brussels on 5 April. It has furthermore already been presented in a UNFCCC side event in Bonn on 23 May (see: http://www.ceps.be/files/Flyer_Side_Event_EUETS_Bonn_fin.pdf).

For further information on the European Climate Platform please visit: http://www.ceps.be/Article.php?article_id=484.

ANNOUNCEMENTS

6.1. Invitation for comments – JI project in Czech Republic

SGS has been contracted for the determination of the JI project "Landfill Gas recovery in the Czech Republic". The project proposes to build and operate installations for extraction and subsequently flaring of methane gas or converting into electricity by gas engines at the landfill's sites in TKO Těmice (Moravia, Jihomoravský District), TKO Ronov nad Sázavou (Bohemia, Vysočina District) and EKOS Řevnice (Bohemia, Středočeský District).

In accordance with the JI rules and modalities, SGS would like to invite comments from Parties, stakeholders and observers on the project. The PDD for this project is available on the following webpage: <http://www.sgsqualitynetwork.com/tradeassurance/ccp/projects/project.php?id=122> and is open for comments until 24-08-2006.

6.2. Job announcement – WWF EPO

WWF EPO is looking for a half-time assistant to support the work on the EU ETS, based in the EPO in Brussels from September 2006 to February 2007. This will include work on the issues:

- 2nd NAPs reviewing
- preparing review of ETS Directive for the post 2012 period

and would mean activities such as:

- research
- organising events
- coordinating with WWF National Organisations

Excellent English required, preference for candidates with experience on EU ETS which have worked for an NGO or with the EU Institutions.

Please send all applications by August 15 to: fmoune@wwfepo.org and ssinger@wwfepo.org and europarl@wwfepo.org.

6.3. Call for Major Groups' Inputs to the Reports for CSD-15

The CSD Secretariat encourages and welcomes inputs from major groups' organizations that will contribute to the CSD-15 policy process. Information submitted by major groups will be collected, analyzed and considered in the preparation of Secretary-General's reports.

The fourteen session of the Commission on Sustainable Development (CSD-14), which took place in New York, in May 2006, reviewed the state of implementation of energy for sustainable development, industrial development, air pollution/atmosphere, climate change goals and targets provided for in Agenda 21, the Programme for the Further Implementation of Agenda 2, the Johannesburg Plan of Implementation and the Mauritius Strategy for the Further Implementation of the Programme of Action for the Sustainable Development of Small Island and Developing States. The outcome of CSD-14 was a Chair's Summary, which identified constraints and obstacles to, and continuing challenges for, the implementation of energy for sustainable development, industrial development, air pollution/atmosphere, climate change goals and targets.

The Chair's Summary of CSD-14 provides the substantive basis for the preparation of the Secretary-General's reports for CSD-15, which the Division for Sustainable Development is currently preparing. Guided by the decision of the CSD for the preparation of the reports of the Secretary-General for the policy year of the CSD two-year work cycle, these reports will focus on policy options and possible actions to overcome the constraints and obstacles and meet the challenges identified by CSD-14.

Major groups are invited to provide inputs to the preparation of the Secretary-General's reports. Your discussion of a given policy option or possible action should be concise but nevertheless as specific as possible, including a brief rationale and, as appropriate, brief reference to the necessary conditions for effective implementation. It is also requested that you provide complete references and supporting documentation – or links thereto.

Please note that each of the Secretary-General's reports will have a maximum of 16 pages and needs to be completed by September 2006. Major groups wishing to contribute to these reports should use the enclosed framework to submit their inputs, by not later than 18 August 2006 and send responses in writing to:

CSD Major Groups Programme
e-mail: csdmgregister@un.org
fax: + 1 917 367 2341

6.4. Opening of call for public input on guidance on criteria for baseline setting and monitoring

The Joint Implementation Supervisory Committee is responsible for developing guidance on criteria for baseline setting and monitoring. At its third meeting, it defined a procedure in this regard. One step of this procedure is the development of a working paper on guidance on criteria for baseline setting and monitoring and the launching of a call for public input on this document.

Public comments shall be sent to the UNFCCC secretariat by 15 August 2006 (17:00 GMT).

The call for public input is available through the main page of the UNFCCC JI website or under the following link: <http://ji.unfccc.int/CallForInputs/PublicInput/index.html>.

6.5. Powerpoints of UNEP's Atlas Released for Educational Purposes

One Planet, Many People: Atlas of Our Changing Environment provides a comprehensive, visual presentation of scientifically verifiable information about changes in the global environment, shown through state-of-the-art remote sensing technology. A collection of 405 Powerpoint slides divided into Regional and Thematic sets covering 11 contemporary and dynamic themes – Introduction to the Planet, People and Planet, Atmosphere, Coastal Areas, Urban Areas, Water and Lakes, Forests, Cropland, Grassland, Tundra and Polar Areas and Extreme Events – and 6 geographical regions – Africa, Asia and the Pacific, Europe, Latin America, North America and Polar Regions – can now be downloaded free of charge at <http://www.na.unep.net/OnePlanetManyPeople/powerpoints.html>.

This presentation of environmental hotspots and issues is based primarily on satellite imagery taken over 30 years showing how human actions and geophysical activities have changed various parts of the world. Examples include the shrinking ice in the Arctic, melting glaciers, growth of cities like Las Vegas, forest loss in the Amazon, and the decline of the Aral Sea and Lake Chad. Satellite images found in the 334-page hard-bound Atlas are packaged in this Powerpoint presentation format to facilitate the use of imagery by environmental policy makers, non-governmental organizations, the private sector, academics, teachers and citizens interested in using this material to visually demonstrate the changes resulting from natural processes and human-induced activities.

