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EU

- 1.1. Climate change: start of the second European Climate Change Programme

21 October 2005

On Monday, 24 October, Environment Commissioner Stavros Dimas will launch the second European Climate Change Programme (ECCP II) at a stakeholder conference in Brussels. In view of the magnitude of the climate change threat, ECCP II will focus on new cost-effective measures and technologies that will allow the EU to reduce its greenhouse gas emissions in the coming years and to adapt to the climate change effects that are inevitable. The ECCP, which was initiated in 2000, is the umbrella under which the European Commission and stakeholders discuss and prepare measures to fight climate change. "The recent extreme weather events around the world are consistent with scientific findings about the effects of our changing climate," said Commissioner Dimas. "It is high time that we start preparing new measures to limit climate change. Such measures will create the momentum necessary for reducing our emissions below the Kyoto targets. They will ensure a longer-term perspective, provide for business opportunities and ease the way to the carbon-constrained society of the future. I look forward to the ideas of stakeholders - climate change is a threat to us all." "The conference allows the EU to take stock of the current situation and it offers us the opportunity to demonstrate to others that it is taking the problem of climate change very seriously. I'm pleased to be here today to help kick-start the review of the EU climate change programme," said Elliot Morley, UK Minister for Climate Change and Environment. At the stakeholder conference, which will welcome around 450 participants, Commissioner Dimas will outline the Commission's views on the further development of EU climate change policy. Apart from advocating a meaningful global climate change regime post 2012 - after the expiry of the reductions targets under the Kyoto Protocol - the Commission is convinced of the need of a strong push for innovation in the EU, the inclusion of all emitting sectors, such as aviation, shipping and road transport, and the use of market-based instruments to keep the costs of reducing emissions low. ECCP II will analyse what has been achieved

under the first European Climate Change Programme and look for new options to reduce emissions, particularly in the fields of geological carbon capture and storage, passenger road transport, aviation, and adaptation to those effects of climate change that are unavoidable. With regard to aviation, it will build on the Commission strategy to curb greenhouse gas emissions from air travel that was presented in September 2005 see IP/05/1192). Several working groups on specific issues will be set up at the conference. Their task will be to produce policy recommendations by next year, which will support the Commission in developing and proposing new policies and measures. Apart from Commissioner Dimas, speakers at the conference include Elliot Morley, UK Minister of State for Climate Change and the Environment, and representatives of the European Parliament, business and NGOs. The conference is open to all interested parties, including EU-accredited journalists. It will take place from 9.00 to 17.30, 24 October 2005, in the Commission's Charlemagne building, Rue de la Loi 170, Brussels. Background: The European Climate Change Programme was launched in 2000 to identify policies and measures to help the EU reach its target under the 1997 Kyoto Protocol. This target, which relates to the EU-15, demands a reduction in greenhouse gas emissions of 8% compared to 1990 levels by 2012. So far, around 30 cost-effective measures have been identified and largely implemented. One key measure is the EU Emissions Trading Scheme, which has been operational since 1 January 2005. Other measures are aimed at improving energy efficiency, including the energy performance of buildings, expanding renewable energy sources, advancing combined heat and power generation, regulating the powerful fluorinated greenhouse gases, reducing CO2 emissions from passenger cars and methane emissions from landfills, strengthening R&D and the deployment of new environmentally sound technologies, helping public authorities make climate-friendly public procurement decisions, and raising citizen's awareness. Further information about the stakeholder conference is available at: <http://www.europa.eu.int/comm/environment/climat/eccp.htm>. Information about future action against climate change can be found at: http://www.europa.eu.int/comm/environment/climat/future_action.htm.

1.2. Climate change - Council conclusions

The Council adopted the following conclusions: "The Council of the European Union, 1. Deeply concerned by the conclusion of the February 2005 Exeter Stabilisation Conference that there is strong evidence that global climate change due to human emissions of greenhouse gases is already occurring and that it will result in changes in frequency, intensity and duration of extreme events and by the droughts and fires in southern Europe, floods in Central and Eastern Europe and other extreme weather events this summer which have shown how economically damaging those events can be; Recalls the European Union's commitment to deal with the problem of climate change, most recently expressed by the 2005 Spring European Council and in the European Parliament's Resolution of 12 May 2005 on the Seminar of Governmental Experts, which underlines that climate change is likely to have major negative global environmental, economic and social implications, and that avoiding dangerous climate change will mean limiting global mean surface temperature increase to no more than 2°C above preindustrial levels; and emphasises the importance of fully operationalising the Kyoto Protocol and meeting its targets as an essential first step to achieving this. 2. Recalls and emphasises its commitment to the conclusions of the 2005 Spring European Council and the (Environment) Council. 3. Recalling the European Council's commitment to delivering on the EU's Kyoto Protocol target, and aware that Article 3(2) of the Kyoto Protocol requires each Annex I party to have made demonstrable progress in achieving its commitments under the Protocol by 2005; notes that recent data shows that in 2003 EU emissions were below the base year level but that in 2003 emissions in many Member States rose compared to 2002; stresses that with the implementation of planned additional policies and measures and the use of the Kyoto Mechanisms, the European Community and the Member States listed in Annex B to the Kyoto Protocol remain on course to meet their targets by 2012; acknowledges, however, that more has to be done to meet the European Community and the Member States' ambitions on tackling climate change in the medium and longer term; therefore, welcomes the European Commission's decision to look at further common and coordinated measures to meet the Kyoto Protocol obligations, and launch the next stage of the European Climate Change Programme and invites the Commission to begin that process as a matter of urgency in order to publish its conclusions by early Spring 2006 with a view to reporting progress to the Council by June 2006. 4. Underlines, moreover, that the European Community and also the Member States have put in place comprehensive measures to deliver on our Kyoto Protocol targets, notably through the European Union Emissions Trading Scheme (EU ETS) with links to the Clean Development Mechanism (CDM)

and Joint Implementation (JI); stresses the importance of allocation plans for the period 2008-2012 that, together with other measures, ensure that the European Community and its Member States will meet their commitments; recognises that the implementation of the EU ETS has provided valuable lessons that should be analysed and incorporated in the future development of the scheme; notes that the EU ETS will remain an essential instrument in the EU's medium and long term strategy to tackle climate change. 5. Reaffirms the EU's commitment to ensure the efficient and effective functioning of the flexible mechanisms of the Kyoto Protocol, in particular the CDM, inter alia by playing its part in providing appropriate and reliable financial support to the Executive Board, and to deliver adequate funding in 2006 to ensure the prompt operationalisation of the International Transaction Log; pledges to continue providing adequate financial support until the end of 2008, when the CDM Executive Board becomes self-financing and urges other Parties to do likewise. 6. Recalls the commitment made in Bonn in July 2001 to make an annual \$410m available to developing countries for the implementation of the Convention and; welcomes the commitment by the Member States to communicate at Montreal on the progress being made to deliver on their share of the commitment. 7. Determined to pursue the approach to develop a medium and long term strategy outlined by the 2005 Spring European Council, which emphasises the need for the widest possible cooperation by all countries and their participation in an effective and appropriate international response in the context of the UNFCCC process, and which calls on the EU to explore with other parties strategies for achieving necessary emissions reductions, the Council welcomes: • the Gleneagles Plan of Action with its strong emphasis on implementation of commitments on technology transfer and managing the impacts of climate change under the United Nations Framework Convention on Climate Change and looks forward to working together with G8 and other countries to pursue measures outlined in the plan; the positive and productive discussion at the preparatory meeting of ministers in Ottawa on technology, adaptation, enhancing participation, market forces and sustainability; the Greenland Dialogue meeting, which allowed for a constructive exchange on possible ways forward; the fifth meeting of the Forum of Ibero-American Ministers of the Environment in Panama on 21 and 22 September 2005; the China-EU Partnership on Climate Change and the India-EU Initiative on Clean Development and Climate Change, which demonstrate how economies in different stages of development can work together, through transfer of technology and building of capacity, to tackle climate change; the sixteenth EU-Russia summit which demonstrates the close and growing cooperation between the EU, its Member States and Russia on climate change, including work on the implementation of the Kyoto Protocol and an active dialogue on continuing international cooperation after the end of the first commitment period of the Kyoto Protocol; the forthcoming Beijing International Renewable Energy Conference in November 2005, believing it will make a positive contribution to advancing understanding of how to drive technological innovation and of the importance of using existing technologies with a view to moving towards a low-carbon emitting economy; the decision to place climate change high on the agenda of the summit with Canada, to prepare the eleventh Conference of the Parties to the United Nations Framework Convention on Climate Change (COP 11) and the first Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol (COP/MOP 1) in Montreal in December 2005. 8. Emphasises that successful action depends on integrating climate change policy into decision-making processes in key relevant areas, and looks forward to reporting to the European Council in December 2005 on the progress made; underlines that a global future climate change strategy should drive technology innovation, employing an optimal mix of "push" and "pull" policies; with this in mind, recalls the discussion held at the July 2005 informal meeting of EU Competitiveness Ministers in Cardiff, which noted that the Seventh Framework Programme on Research inter alia has an essential role to play in tackling environmental issues such as global climate change; and notes the information presented at the September 2005 informal meeting of EU Environment and Agriculture Ministers in London, showing the impacts of climate change on agriculture and the opportunities for agriculture to contribute to reducing emissions. Takes note of the recent publication of the Communication from the European Commission "Reducing the climate impact of aviation"; welcomes the emphasis the Commission has placed on tackling this serious and growing problem, and looks forward to debating its contents in December 2005. 9. Looking forward to the historic first meeting of the Parties to the Kyoto Protocol and the adoption of the Marrakech Accords, including the immediate operationalisation of the compliance mechanism; taking account of the aspirations of parties expressed at the preparatory meeting of ministers in Ottawa; welcomes the commitment at the June 2005 EU-Canada summit to delivering a positive outcome at Montreal. The EU therefore pledges its full support to the incoming President of the COP and the COP/MOP in his endeavours to achieve agreement in particular on:

Making the Clean Development Mechanism work efficiently; Operationalisation of the JI mechanism, including the establishment of its Supervisory Committee; The 5-year programme of work on the scientific, technical and socio-economic aspects of impacts, vulnerability and adaptation to climate change; Guidance to the GEF on outstanding funding issues. 10. Is encouraged by the positive, forward-looking contributions made in discussions on future action to tackle climate change at the UNFCCC Seminar of Governmental Experts in May 2005; welcomes the commitment of the G8 countries to moving forward the global discussion on long-term co-operative action to address climate change at the UN Climate Change Conference in Montreal in December 2005. 11. Recognises that Article 3(9) of the Kyoto Protocol provides that the first Conference of the Parties serving as the Meeting of the Parties to the Protocol shall initiate the consideration of further commitments to be undertaken by developed countries at least seven years before the end of the first commitment period; and stresses that the COP/MOP should therefore initiate such considerations at its first meeting in December 2005 in Montreal; recalls also that Article 9 provides for a first review of the Kyoto Protocol at the second session of the Conference of the Parties serving as the meeting of the Parties to the Protocol, and that this review is to be coordinated with pertinent reviews under the United Nations Framework Convention on Climate Change. 12. In preparing for COP 11 - COP/MOP 1, looks forward to initiating a process among all Parties to the United Nations Framework Convention on Climate Change to explore how further to implement this Convention to achieve its ultimate objective by developing a post 2012 arrangement, building on the experiences to date in tackling climate change, including inter alia market-based instruments, focusing in particular on environmental effectiveness, improving cost-efficiency, broadening participation in line with common but differentiated responsibilities and respective capabilities, advancing development goals in a sustainable manner, building a global carbon market, exploiting the full potential of existing technologies and exploring new ones as well as tackling adaptation; and stresses the need for a clear timetable for such a process, as well as for a mechanism for taking it forward, taking account of the urgency of the issue and the need to provide certainty for private and public investment."

1.3. Europe misses chance to agree ambitious action agenda for next climate negotiations

18 October 2005, FoE Europe press release

EU Environment Council confronted with European demands to do more on climate change. http://www.foeeurope.org/press/2005/JK_17_Oct_Council.htm. As EU Environment Ministers agreed the EU's position towards the next UN climate negotiations taking place next month in Montreal, Canada, Friends of the Earth Europe warns that by yesterday's agreement the EU is endangering international leadership previously demonstrated by the EU on climate change. Jan Kowalzig, climate campaigner at Friends of the Earth Europe, said: "We had hoped for a much better outcome of today's meeting, given that warnings about the terrible impacts of climate change are growing louder every day. The ministers had grand words to illustrate the current climate crisis and the urgency to act, but failed to turn it into an ambitious action agenda for the global climate talks in Montreal." "The European Union cannot afford to give up its leadership role, if it aims to limit the economic, environmental and human costs of global climate change. Europe should make clear in Montreal, that a new phase of commitments must be negotiated until 2007 or 2008 latest and result in deeper, absolute and mandatory emission cuts by industrialised countries." Friends of the Earth Europe in particular criticises that ministers failed to agree a date by which the EU would aim to finalise international negotiations, given the urgency of the issue and the time needed for implementation on the domestic level. Also, from an earlier draft, a text on mid- and long-term targets for emission reductions by industrialised countries has been deleted and replaced by a mere reference to earlier agreements. On the positive side, Friends of the Earth welcomed the reiteration of the EU's target to keep the global average temperature increase below 2°C. When Ministers arrived for their meeting, they were welcomed by a 100m long wall of "climate messages", painted by thousands of citizens across Europe, demanding that the EU must take the climate crisis much more seriously. UK Environment Minister Elliot Morley received a stack of such painted climate messages, one for each EU Environment Minister. Jan Kowalzig continued: "These messages leave no doubt that Europeans demand more action from their leaders, both at the UN climate talks and on the domestic level, but European countries fail to even meet the meagre targets under the Kyoto Protocol." "Countries fear that real action to reduce emissions would harm the economy. These fears ignore the huge economic and financial impacts that climate change will have on Europe. And they also ignore the economic

potential through triggering innovation as well as competitive advantages in a world that will increasingly need cleaner energy."

ENERGY AND EMISSIONS

2.1. Koizumi urges industrialized nations to ratify Kyoto accord

16 October 2005, AP

Prime Minister Junichiro Koizumi urged industrialized countries that have not signed the Kyoto Protocol on greenhouse gases to ratify the treaty and help reduce the threat of global warming, news reports said Saturday. "We must ask major greenhouse gas-emitting nations that have not taken part in the Kyoto Protocol to take leadership roles," he told an international conference on the environment, according to Kyodo News agency and national broadcaster NHK. Under the United Nations-brokered Kyoto Protocol, industrialized nations commit themselves to cutting their collective emissions of carbon dioxide and five other greenhouse gases to an average of 5 percent below 1990 levels. Koizumi did not mention the United States by name, but the United States accounts for one-quarter of the world's greenhouse gases and has refused to ratify the accord saying it would harm its economy by raising energy prices. The accord, which went into effect in February, has been signed by 140 countries, including China, India, Japan and South Korea. Under its guidelines, the European Union is committed to cutting emissions to 8 percent below 1990 levels by 2012 and Japan is committed to a 6 percent reduction.

2.2. Fuel Use Spreads Vegoil too - Thin for Margarine Firms

21 October 2005, Reuters

Fierce competition over rapeseed oil for use either in biodiesel fuels or foods has margarine makers worried about a shortage for the spread people put on their bread. Big European food makers like Anglo-Dutch Unilever are concerned about getting enough rape oil as soaring crude oil prices prompt biofuel producers to ratchet up production, an industry association said. "If the current trend in EU biodiesel production continues over the coming five years, our estimates indicate that the rape oil usage for biodiesel production alone would exceed the total rape oil production volume," Inneke Herreman, secretary general of the International Margarine Association of the Countries of Europe (IMACE), told Reuters. Soaring crude oil prices have made biofuels produced of rape, soy and palm oil even more attractive in the EU, where tax incentives have already stimulated the "green" fuels. Herreman said the margarine industry, whose biggest member is Unilever, wants policy makers to take their concerns onboard and stimulate energy alternatives made from non-edible oils, instead of those oils fit for human consumption. "The EU food industry is thus facing an ever-tightening residual supply and sharply rising prices of rape oil, further encouraged by the high mineral oil prices," she said. Rape oil -- the product most used by the biodiesel industry because of its availability and quality -- has gained about 100 euros a tonne since early September to about 627, leaving food producers scrambling to find material to cover their needs. Supplies sold out: EU processors have sold out their rape oil until January and most of it for the beginning of next year. Margarine producers are the biggest users of rape oil in the food industry. Herreman said mayonnaise, salad dressing and some chocolates producers, who use rape oil, were also affected. The supply squeeze have forced producers to switch to sunseed oil. Traders and analysts say imports of rape oil next year and a big European 2005 rapeseed crop meant food needs would be covered in the coming year, even though edible oil users would have to put up with higher prices. Analysts also say high rape oil prices could encourage farmers to increase rapeseed plantings next year. But Herreman said their big worry was whether there would be enough vegetable oil in the long term given the growing race in Europe and other parts of the world to expand biofuel capacity. "Moreover, this trend of rising biodiesel production and increased direct mixing of edible oil with diesel is now expanding beyond the EU and (has) come to include soy and palm oil as well," she said. "The world could then face a major and sharply price-increasing conflict of demand for edible oils for food usage and for alternative energy." The EU has seen an unprecedented rise in biofuel capacity in the past two years as governments promote green fuels to reduce greenhouse gas emissions and crude oil bills. The EU targets a 5.75 percent biofuels share of total fuel consumption by 2010. Herreman said EU governments should take food producers into account when reviewing their policies to grant tax incentives for biofuel production and urgently consider other energy alternatives, such as biomass. Story by Anna Mudeva.

2.3. China could become the world leader in wind power, says Greenpeace
17 October 2005

China is in a position to become the world leader in wind power, according to a Greenpeace report released today. Wind Guangdong, a study of wind power potential in the heavily industrialized Guangdong province in southern China, says that by 2020 alone, the region could feasibly produce enough energy from wind turbines to meet the equivalent of Hong Kong's total current electricity supply. "This report confirms that with political and industry will Guangdong's uptake of clean wind power could become a model for renewable energy development not only in China but for all of Asia," said Robin Oakley, Greenpeace China's Energy spokesperson. "This would be a gigantic step forward in reducing the threat of climate change and powering the sustainable growth of the region's economies." By 2020 enough wind power could feasibly be installed in Guangdong to cut carbon emissions by 29 million tonnes. Guangdong, the richest and most populous province in China, is among the biggest emitters of carbon dioxide (CO₂) in China and Chinese scientists claim that the concentrations of carbon dioxide in the region are among the highest in the world. "Every player in China is actively devoted to wind energy," said Li Junfeng, Director of the Chinese Renewable Energy Industry Association, "including the Big Five Power Companies, some private companies and some provincial energy investment companies. Even companies like China Guangdong Nuclear Power, which has been investing in nuclear power, is paying attention to wind power."

2.4. Dutch Kyoto target can be met despite increasing energy consumption
19 October 2005, Press release Petten

Introduction: The Reference Projections 2005-2020 cover the future development of Dutch energy use, greenhouse gas emissions and air pollution up to 2020. The Reference projections are based on assumptions regarding economic, structural, technological and policy developments. Two scenarios have been used. The Strong Europe (SE) scenario is characterized by moderate economic growth and strong public responsibility. The Global Economy (GE) scenario assumes high economic growth and has a strong orientation towards private responsibility. Kyoto target probably met: Energy consumption continues to grow in both scenarios and energy intensity is declining in the GE-scenario. Gradual rise of temperature is now included in the estimates for space heating and air conditioning. Energy prices for end users will rise, due to increased imports of natural gas and rising costs of electricity generation. The share of renewables in electricity consumption increases considerably due to subsidies for wind at sea and biomass, up to the target of 9% in 2010. Emissions of non-CO₂ greenhouse gases are reduced and stabilise after 2010. The Dutch Kyoto target is probably met in both scenarios, assuming considerable emission reduction efforts abroad. Air-pollution targets uncertain: Acidifying emissions of NO_x and SO₂ stabilise after reductions, but at levels that exceed their national emission ceiling (NEC). Emissions of volatile organic compounds are projected to fall with approximately 25% between 2002 and 2010 below their NEC. Emissions of ammonia are projected to meet their NEC. The emission of particulate matter (PM₁₀) will stabilise at present levels. Report: The Reference Projections energy and emissions 2005-2020, are published by the Energy research Centre of the Netherlands (ECN) and the Netherlands Environmental Assessment Agency (MNP) for the Dutch Government. The report can be downloaded from the ECN website at: <http://www.ecn.nl/library/reports/2005/c05089.html> or from the MNP website: <http://www.mnp.nl/en/publications/2005>.

CLIMATE IMPACTS

3.1. Dutch windmills at risk from climate change
20 October 2005, Reuters

By Anna Mudeva: Windmills, one of the Netherlands' trademarks, may go idle because of less wind as a result of climate change, Dutch scientists predict. New research shows scientists could have been wrong when they forecast years ago that global warming would cause more storms and wind in northwestern Europe, Albert Klein Tank of the Royal Netherlands Meteorological Institute (KNMI) told Reuters. "We said that 10-15 years ago and what we see in the observations is that the climate is warming but the number of storms is actually decreasing," said Klein Tank, who leads a team making

climate scenarios for the Netherlands. "We don't have a good explanation for that," he told Reuters in an interview on Wednesday. The traditional windy climate of northwestern Europe has spurred a rapid growth in windmills, mainly in the Netherlands and Germany, to provide alternative energy. Dutch windmills, however, saw declining energy production in the past decade because of less wind, Klein Tank said. "My opinion is that this fluctuation will stabilise in the end but it's not clear at all how it will change in next 20-30 years," he said. "It is one of the most difficult parts and the biggest challenges for scientists -- to say something realistic about future storms," he said. A panel of scientists that advises the United Nations has projected that world temperatures are likely to rise by 1.4-5.8 Celsius by 2100, triggering more floods, droughts, storms, melting icecaps and driving thousands of species to extinction. New scenarios about the Dutch climate, due to be published by KNMI early next year, predict a change in atmospheric flows which means more moisture coming from the North Sea in winter and more frequent droughts in summer, Klein Tank said. Summer rainfall is also likely to become heavier because of rising temperatures, threatening an increase in river levels and floods in the low-lying Netherlands. Klein Tank's colleague, Rob Van Dorland, said rising sea level was another danger for his country, which had battled for centuries to claw back land from the sea. The new scenarios also forecast a 10-percent lower average temperature rise in the Netherlands by 2100 than that for the entire planet, due to the influence of the sea. Too late?: Van Dorland said huge efforts were needed to slow global warming but he believes it is too late to stop it altogether. "It's too late now to avoid the temperature rise. It's unchangeable," he said. "But if we are doing our very best, by reducing CO2 levels by 60 to 80 percent between now and 2050, we can avoid a temperature rise higher than 1-2 degrees (Celsius)." Scientists say increasing concentration of heat-trapping greenhouse gases, including carbon dioxide (CO2), from human activity is to blame for global warming. "We still make the conclusion that the human factor is dominant in the last 50 to 60 years or so ... We can be conclusive about that because if you look at the natural factors the planet would have cooled," Van Dorland said. He and Klein Tank are among about 120 scientists from around the world involved in producing the next U.N. report on climate change due in 2007. Its conclusions are expected to have a big impact in guiding government policy on fighting global warming.

3.2. Global Warming a Major Threat to Africa

21 October 2005, By Alexandra Zavis, Associated Press

Deadly epidemics. Ruined crops. The extinction of some of Africa's legendary wildlife. The potential consequences of global warming could be devastating for the world's poorest continent, yet its nations are among the least equipped to cope. "It is our vulnerability that sets us apart from developed nations," said Luanne Otter, a researcher at the University of the Witwatersrand during a conference this week in South Africa on climate change. Surface temperatures rose about 1 degree Fahrenheit in the 20th century _ the largest increase in 1,000 years, according to the Intergovernmental Panel on Climate Change. 1998 was the warmest year on record, and 2005 could be even hotter. Climate experts say the trend will continue as long as carbon dioxide from burning fossil fuels and other gases keep building up in the atmosphere, trapping heat like a greenhouse. African nations account for a tiny percentage of the emissions but are already suffering the consequences, researchers say. The ice cap is receding on Africa's highest peak, Mount Kilimanjaro. Desertification is spreading in the northwestern Sahel region. Droughts, flooding and other extreme weather events are becoming more frequent and severe. Numerous plant and animal species are in decline. South Africa's environmental affairs minister, Marthinus van Schalkwyk, urged the United States and other holdouts to sign the Kyoto Protocol, which calls on the top 35 industrialized nations to cut carbon dioxide and other gas emissions by 5.2 percent below their 1990 levels by 2012. But even if countries stop polluting today, researchers argue the effects will be felt for decades to come, posing what the African Development Bank has singled out as possibly the greatest long-term threat to poverty eradication efforts on the continent. Some 770 million Africans _ 63 percent _ live in rural areas, and about 40 percent survive on less than a dollar a day. Most are small-scale farmers. Wood is their major source of fuel, and medicinal plants their main defense against disease. Many are already subject to recurring droughts, floods and soil degradation that can wipe out their livelihoods. Any long term changes in temperatures and rainfall could fundamentally alter the landscape in which they live and the production potential on which they depend. Hotter, drier weather in the semiarid west of South Africa could reduce production of maize, a staple, by up to 20 percent and generate a proliferation of pests, researchers said. In the moister areas to the east, where rainfall is forecast to increase, thickets are encroaching into productive grasslands, threatening livestock and wildlife activities. Rising temperatures at higher

altitudes could also quadruple the number of South Africans at high risk of malaria by 2020. With weather becoming more erratic, communities are finding themselves with little time to recover from one disaster before being hit with the next. While the United States may be able to recover from Hurricane Katrina in a year or two, it could take Mozambique 10 years to recover from the catastrophic floods of 2000, said Roland Schulze a hydrologist at South Africa's University of KwaZulu-Natal. Tourism is also an important driver of development in a number of African nations and most of it is nature-based. Some species in South Africa's famed Kruger National Park are already disappearing, said Norman Owen-Smith of the University of the Witwatersrand. Among those most at risk are the sable, tsebebe, eland and roan antelopes, which are already at the edge of their natural ranges. As temperatures rise and rainfall becomes more erratic, they will want to push east toward the more humid coastline but are blocked by Kruger's fences, Owen-Smith said. The East African coral reefs have already suffered major bleaching events linked to increasing water temperatures and light, including one in 1998 resulting in 75 percent to 77 percent mortality. Some experts fear that could become the norm within the next half century. Many argue it is only by rethinking conservation policies that species will be preserved. Corridors will have to be created to allow animals to migrate toward their favored climatic zones, or they may have to be translocated to new habitats. A number of southern African countries have already agreed to open their borders to transfrontier parks. Early warning systems and disaster management plans also will need to be set up, new water sources explored, and decisions made about what crops to farm and how best to allocate fishing rights.

3.3. Antarctic species feel the warmth 19 October 2005, BBC on-line

An alarming rise in temperature in the Southern Ocean threatens seals, whales and penguins as well as krill, which play a crucial role in the food chain. The ocean west of the Antarctic Peninsula has warmed by more than a degree since the 1960s - contradicting the results of computer models. Sea animals in the region are highly sensitive to changes in temperature. UK scientists predict whole populations and species could disappear from the region as a result of further warming. In the journal *Geophysical Research Letters*, Michael Meredith and John King of the British Antarctic Survey write: "Marine species in this region have extreme sensitivities to their environment." They add that "population and species removal [are] predicted in response to very small increases in ocean temperature." Fragile ecosystem: In the summer, water temperatures around the Antarctic Peninsula peak at around 0.5C. At about 2C, Antarctic scallops lose the ability to swim and at around 4-5C, clams lose the ability to burrow into the seabed. Krill is considered a keystone species, an organism upon which many others in the region depend; but it is already under pressure. A study published last year showed krill numbers had fallen by 80% since the 1970s and experts linked the collapse to shrinking sea ice (the crustacean feeds on algae under the ice). Professor Lloyd Peck, a polar expert also at Bas, commented: "It is the first paper to show a temperature change in the Southern Ocean that could have ecological significance and possibly global importance." Confounding models: Computer models had suggested that a combination of ice, winds and currents would keep the Antarctic water cool and shield many marine creatures from the effects of climate change. "Air temperatures on the Antarctic Peninsula have gone up by three degrees in the last 50 years or so and none of the computer models show that either," Professor Peck told the BBC News website. "So I think you have to accept that the ability of the models to characterise polar regions is relatively poor." The amount of salt in the top layer of water has also increased. This is important as dissolved salt lowers the freezing point of ice. This makes it more difficult for sea ice to form in winter. Ice is a powerful reflector of sunlight, so reducing its area at the poles could increase the warming effect both on polar regions and globally.

3.4. Storms blowing us back to Kyoto 19 October 2005

AS WE endure the effects of tropical storm Wilma, we are forced to contemplate the possible causes for this very active hurricane season. Wilma has tied a record set in 1933 by being the 21st tropical storm of the season. We naturally have no control over the storms that afflict our region and over their size, frequency and strength. However, we are being forced to conclude that man is contributing to these 'natural' disasters, and that some of the changes in climatic phenomena are being aided by misguided policies. Scientists have agreed that global warming appears to be contributing to the

frequency and ferocity of storms. The Massachusetts Institute of Technology in the United States, for example, found that the destructive power of North Atlantic storms had doubled over the past 30 years, during which the sea surface temperature rose by only 0.5°C. Scientists say that current emission levels of carbon dioxide and other gases trap heat in the atmosphere, leading to rising global temperatures. Governments have a chance to control this. The Kyoto Treaty requires industrialised nations to cut emissions of these 'greenhouse gases' below their 1990 levels. The agreement needs to be ratified by countries that were responsible for at least 55 per cent of the world's carbon emissions in 1990. The treaty has been ratified by 157 countries, but there are some omissions and aberrations. The biggest polluters are the world's two fastest-growing economies - China and India - and the United States. Because of their 'developing' status, China and India are not required to take such severe measures to cut pollutants, as are demanded of industrialised countries. The United States will not sign the treaty, says President Bush, because it would wreck the country's economy. In light of the threats from storms that the Caribbean faces for a half of every year, we suggest that the region's governments cooperate to force a global rethink on attitudes towards the Kyoto Treaty. They should demand that levels of pollution rather than levels of development be the benchmarks for action by major polluters. Wilma is a postscript to letters already sent to world leaders by phenomena such as Katrina and Rita. The governments of China, India and the United States must be made to see that they must be a part of what the Kyoto Treaty attempts to correct. President Bush, for example, may then be forced to consider whether the perceived 'wreckage' of the U.S. economy would be worse than the real wreckage done by Katrina and Rita - hundreds dead, damage conservatively estimated at \$45 billion, half a million jobs lost, energy prices increased and a historic city destroyed.

3.5. Climate Change may Mean Green Sahel

18 October 2005, Planet Ark

Rainfall over parts of Africa's Sahel appears to be rising but its greening could prove a mixed blessing if the population surges as a result and drought follows, a leading ecologist said on Monday. "Climate change models suggest the Sahel should be getting drier but observations suggest it is currently getting wetter," Jon Lovett of the University of York in Britain told Reuters on the sidelines of a conference on climate change in Johannesburg. "This could lead to an increase in food production and population, but this will be bad if it suddenly goes into another cycle of drought which cannot support all of the additional people and livestock," he said. "It has cycles of boom and bust." Lovett said the Sahel was relatively green during the 1940s through to the 1960s but since then it has gone into a dry phase that seems to be ending. Intriguingly, he said research done more than a decade ago linked a wetter Sahel to increased hurricane activity in the Gulf of Mexico -- and this appeared to be occurring in the wake of the devastation wrought by Hurricanes Katrina and Rita. "This shows that what is happening in Africa can have an affect on the Gulf of Mexico," he said. The Sahel is a transition zone between the arid Sahara to the north and the wetter more tropical areas in Africa to the south. It includes Senegal, Mauritania, Mali, Burkina Faso, Niger, Nigeria and Chad. Niger experienced a famine this year brought on by poor rains and locust swarms, underscoring the region's vulnerability.

3.6. Small Africa Farmers seen Vulnerable to Climate Change

18 October 2005, Planet Ark

Small farmers in Africa will be hardest hit by climate change and will have to switch crops and livestock to adapt, South Africa's environment minister said on Monday. "It is small scale agriculture and rural farmers who will be hardest hit -- especially because they are not capital intensive," Marthinus van Schalkwyk said at the start of a national conference on climate change. "As climate change threatens our herds and crops with changes in rainfall patterns and temperature ranges, our farmers will either be forced off their land or they must stand ready with new management strategies," he said. Food security is a huge regional issue at the moment with around 12 million rural dwellers in southern Africa in need of food aid to see them through to the April harvest. Almost all of these people are poor, small-scale farmers. A raging AIDS pandemic that is killing off rural workers is seen as a key reason for the food shortages but erratic rainfall during the last growing season is the other culprit -- and more regional droughts are seen because of climate change associated with the emission of so-called greenhouse gases. When global patterns shift: "Why do our crops fail and our rivers run dry more often? Although there are many variables that influence weather in the short term, when global patterns shift over many years it is climate change that emerges," van Schalkwyk

said. Africa needed to begin switching crops now to be prepared, he said. The staple maize crop grown in much of southern Africa, for example, is not very resistant to harsh drought conditions. "We will need more resistant crops and animal varieties, more sustainable land management practices, and better support for farmers," van Schalkwyk said. "If the choice is between losing a farm or switching crops -- say from dairy to meat production, or from apples to olives and grapes -- then these decisions we must begin to address today," he said. The four-day conference will explore a host of issues ranging from climate change policy in South Africa to the ability of species to adapt to changing weather patterns. Africa is the world's poorest region and emits less greenhouse gases than any other inhabited continent. Some analysts warn that Africa could suffer the most from climate change, with changing weather patterns exacerbating crop yields in regions already vulnerable to boom and bust cycles of plenty and drought. "I hope that there is ongoing recognition that the ecological footprint of the poor is tiny compared to the massive consumption patterns of the developed world," South Africa's Science and Technology Minister Mosibudi Mangena said. "This creates special obligations for the developed world to partner with the developing world to find sustainable solutions for the future," Mangena told the conference.

3.7. Antarctic Ice Melts as Sea Warms but Cause Unknown

18 October 2005, Planet Ark

Antarctica is melting, adding to the inexorable rise in global sea levels, endangering millions of lives and whole economies, leading scientists said on Monday. But while the effect is well known after years of monitoring from land and space, the reasons for the sea warming are not. "We know sea levels will rise. We need to know by how much and why," Anthony Payne of the University of Bristol and one of the organisers of a major scientific conference in London, told Reuters on the sidelines of the meeting at the Royal Society, Britain's national academy of science. "This has implications for the whole world -- most people and industries are in coastal areas," he added. Payne said there was a net loss of mass in Antarctica as the snowfall in the centre of the frigid landmass was more than offset by sea ice melting around the edges. The key was to find out whether the process was accelerating, or whether it might stabilise or even reverse. And the important factor was understanding the complex interaction between ocean and wind currents and how much -- if any -- of the warming of the seas was due to mankind's contribution to global warming. "We know a lot more about the ice sheets than we did before," Payne said. "We know change is happening and that it is rapid. What we don't know is why or what is causing it -- what proportion is anthropomorphic." Scientists calculate that average world temperatures -- which have already risen by 0.6 degrees Celsius (1.1 Fahrenheit) since 1900 -- could rise by at least two more degrees this century, due in large part to greenhouse gases from burning fossil fuels. High economic cost: Bob Bindschadler, a glaciologist from US space agency NASA, said the West Antarctic ice sheet was reducing -- albeit patchily -- but that if it all melted it would raise global sea levels by 6 metres. Putting it in context he said that a 1-metre rise in sea levels would cost the United States alone \$400 billion -- roughly twice the estimated cost of the destruction wrought by hurricane Katrina in New Orleans last month. "We don't want to have too many New Orleans," he told the start of the two-day conference that will pool all Antarctic knowledge and help shape the fourth assessment report of the Intergovernmental Panel on Climate Change that is due in 2007. Eric Rignot, a fellow NASA scientist, said marine ice on the world's coldest continent was in general retreat due to rising sea temperatures. "The Antarctic ice sheet is changing at a faster rate than anticipated. The coastal changes are the most significant, with the potential to reach far inland," he told an audience of his peers from around the world. While the vast East Antarctic ice sheet, which is more than double the size of its western neighbour, was more or less stable except at the coastal fringes, there was no guarantee it would remain so. "The East Antarctic ice sheet is not immune to change," he said, noting that more than one third of the annual 1.8 millimetre rise in global sea levels came from Antarctica. Story by Jeremy Lovell.

CONFERENCES

4.1. Full Draft Agenda for 2nd Annual Methane to Markets Partnership Meeting

The Administrative Support Group is pleased to distribute the full draft agenda for the 2nd Annual Methane to Markets Partnership Meeting which will be held at the Palacio San Martín in Buenos Aires, Argentina on 2-4 November 2005. The complete draft agenda can be found at:

