



CLIMATE – NEWS

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ICFRE – CLIMATE CHANGE NEWS From the Biodiversity & Climate Change (BCC) Division, Directorate of Research, Indian Council of Forestry Research and Education, P.O: New Forest, Dehra Dun – 248006

CLIMATE CHANGE INTERNATIONAL NEWS

GLOBAL WARMING LINKED TO INCREASE IN WESTERN U.S. WILDFIRES

July 12, 2006, San Bernardino, California, USA

Western wildfires have attracted broad public and political attention in recent years due to the severity and expanse of the areas they have consumed, hundreds of homes burned and devastating damage to natural resources. Fire-fighting expenditures for wildfires now regularly exceed one billion dollars per year. Global warming is partly responsible for an increase in numbers of large wildfires across the Western United States since the late 1980s, according to new research by scientists with the Scripps Institution of Oceanography and the University of Arizona.

GLOBAL HEATING, 2006 HOTTEST YET

July 15, 2006

The first half of 2006 was the warmest on record in the U.S, 3.4 degrees above the 20th century record, January to June was the warmest first half of any year in the continental United States since record keeping began in 1895, U.S. government scientists reported Friday. The average January-June temperature was 51.8 degrees Fahrenheit, 3.4 degrees above the 20th century average, according to preliminary data reported by scientists at the National Climatic Data Center.

TOP SCIENTIST OFFERS WAY OUT OF GLOBAL WARMING

1st Aug, 2006 0419hrs IST TIMES NEWS NETWORK

A Nobel Prize-winning scientist has come up with a measure to tackle global warming, by altering the chemical makeup of Earth's upper atmosphere. Professor Paul Crutzen, who won

a Nobel Prize in 1995 for his work on the hole in the ozone layer, believes that a radical contingency plan is needed as political attempts to limit man-made greenhouse gases are too pitiful, Livescience.com reported. In a scientific essay published in the August issue of the journal *Climate Change*, Crutzen says that an "escape route" is needed if global warming starts to run out of control.

Crutzen has proposed a method of artificially cooling the global climate by releasing particles of sulphur in the upper atmosphere, which would reflect sunlight and heat back into space. Crutzen's proven track record in atmospheric research has made the scientific community look up, in spite of the proposal's controversial nature. Crutzen, a researcher at the Max Planck Institute for Chemistry in Germany, says: A fleet of high-altitude balloons could be used to scatter the sulphur high overhead, or it could even be fired into the atmosphere using heavy artillery shells. The effect of scattering sulphate particles in the atmosphere would be to increase the reflectance, or "albedo", of the Earth, which should cause an overall cooling effect.

BRITISH SWIMMER URGES TONY BLAIR TO ACT ON CLIMATE CHANGE

02 Aug 2006, London, UK

British polar explorer and endurance swimmer Lewis Gordon Pugh, who is attempting to become the first person to swim the entire length of the River Thames, will be jumping out of the river at Westminster to make a personal plea to Tony Blair and the UK government to meet their national climate change targets. In particular, Lewis is urging the Prime Minister to put policies in place to reduce CO₂ emissions by 20 per cent by 2010.

More Frequent Heat Waves Linked to Global Warming

August 4, 2006, Washington Post

Heat waves like those that have scorched Europe and the United States in recent weeks are becoming more frequent because of global warming, say scientists who have studied decades of weather records and computer models of past, present and future climate. While it is impossible to attribute any one weather event to climate change, several recent studies suggest that human-generated emissions of heat-trapping gases have produced both higher overall temperatures and greater weather variability, which raise the odds of longer, more intense heat waves.

GREENLAND'S ICE LOSS IS ACCELERATING, SATELLITE STUDIES SUGGEST

August 15, 2006, USA Today

Greenland is shedding ice at an increasing rate, about three times faster than past years, satellite measurements suggest. The findings, based on more than three years of observations, echo data released earlier this year. Taken with related reports from Antarctica, the study suggests global warming may be accelerating an increase in sea levels. Greenland's ice sheet holds about 10% of the world's glacial ice, nearly 600,000 cubic miles of it, enough to raise sea levels more than 20 feet worldwide if it all melted.

ACID RAIN AFFECTS LARGE SWATHES OF CHINA

August 28, 2006, China

Acid rain caused by sulphur dioxide spewed from factories and power plants affected a third of China's vast land mass last year, posing a threat to food safety, Xinhua news agency said citing a parliamentary report. More than half of the 696 cities of the country monitored had suffered acid rain, in some cases on a daily basis, according to a pollution inspection report submitted to the standing committee of parliament, the official agency said. "Increased sulphur dioxide emissions meant that one third of China's territory was affected by acid rain, posing a major threat to soil and food safety," Xinhua cited NPC standing committee vice chairman Sheng Huaren as saying. Discharge of sulphur dioxide in booming China rose by 27 percent between 2000 and 2005 to 25 million tonnes, making the country the world's top emitter of the pollutant.

1ST INTERNATIONAL CONFERENCE ON CLEAN DEVELOPMENT MECHANISM IN SAUDI ARABIA

September 19 – 21, Riyadh, Kingdom of Saudi Arabia

The first international conference on the Clean Development Mechanism (CDM), was held in Riyadh, Saudi Arabia from 19 – 21 September 2006. Major themes of the conference were perspectives and principles of CDM, along with legal, financial and methodological aspects of the Kyoto mechanism.

ICFRE NEWS

PARTICIPATION OF ICFRE AT UNFCCC WORKSHOP ON “REDUCING EMISSIONS FROM DEFORESTATION IN DEVELOPING COUNTRIES” AT ROME, ITALY

30 August - 1 September 2006

Shri Sandeep Tripathi, ADG & Head, Biodiversity & Climate Change Division, ICFRE attended the aforesaid Workshop conducted on the request of the Conference of the Parties (COP) to the UNFCCC.

Avoided Deforestation is a newly debated mechanism under CDM, whereunder developing countries that volunteer to reduce their national level of deforestation rate to below a historical average baseline e.g. a 1980 – 1990 level, and commit to, stabilize or further reduce deforestation in the future would receive post facto compensation.

The workshop provided an opportunity for Parties to share experiences and consider relevant aspects relating to reducing emissions from deforestation in developing countries.

Shri Tripathi put forward the country view on the issue of avoided deforestation that the Government of India was not in favor of any “optional” or “voluntary” protocol exclusively for “Deforestation” activities during the first commitment period or subsequent periods. He also stated that before embarking upon any such mechanism all technological, methodological and other related issues needed to be addressed and firmed up through a scientific body like IPCC.

ISO 9001:2000 IMPLEMENTATION FOR ICFRE

ICFRE is heading for ISO 9001:2000 certification. The Quality Manuals as per ISO 9001:2000 are now complete and are kept at various user locations. The first audit by internal auditors was conducted on 11th – 13th July 2006. A shadow audit was also conducted on 7th and 8th August 2006 by the consultants.

All the requirements as per the ISO 9001:2000 QMS are now met at ICFRE Hqs and the system is ready for ISO 9001:2000 certification.

MEETING OF STAKEHOLDERS UNDER EU – ICFRE PROJECT AT ICFRE, DEHRADUN

14th – 15th September, 2006

Biodiversity and Climate Change Division, ICFRE, Dehradun organized a two day Meeting of Stakeholders on “Proposed Policy reforms to remove the barriers to CDM Afforestation and Reforestation (A/R) Projects” on 14th and 15th September 2006 under the EU – ICFRE Project titled “Beyond Kyoto: EU-India CDM Partnership: Promoting Stakeholder Dialogue and Analysis of Barriers to Forestry Mitigation Projects” being implemented by the Division.

A total of 76 delegates representing cross section of Stakeholders from different State Forest Departments, Institutes, NGOs and Farmer Associations participated in the Meeting. Shri Jagdish Kishwan, Director General, ICFRE delivered the keynote address; Dr. B. S. Burfal, Principal Chief Conservator of Forests, Uttaranchal was the Chief Guest of the function and delivered the Inaugural Address.

Under the EU- ICFRE Project, BCC division of ICFRE conducted Barrier analysis study for CDM A/R Projects. The Study report was discussed in the above meeting together with the recommendations as well. The identified barriers along with recommendations will be forwarded to Government of India to facilitate speedy implementation of CDM A/R Projects in India.

UPCOMING EVENTS

UNITED NATIONS CLIMATE CHANGE CONFERENCE - NAIROBI 2006

6 - 17 November 2006, United Nations Office at Nairobi, Gigiri, Africa

Kenya will host the second meeting of the Parties to the Kyoto Protocol (COP/MOP 2), in conjunction with the twelfth session of the Conference of the Parties to the Climate Change Convention (COP 12), in Nairobi from 6 to 17 November 2006. The conference will also include, from 6 to 14 November, the twenty-fifth session of the Subsidiary Body for Scientific and Technological Advice (SBSTA 25) and the second session of the Ad Hoc Working Group on further commitments for Annex I Parties under the Kyoto Protocol (AWG 2). The second workshop under the dialogue on long-term cooperative action to address climate change by enhancing implementation of the Convention (the Dialogue) will be held from 15 to 16 November.

CLIMATE CHANGE AND THE MIDDLE EAST, PAST PRESENT AND FUTURE

November 20-23, 2006, Istanbul Technical University, Turkey

The Middle East, like other regions, needs to urgently examine the way in which climate change may affect its future water supply and this in turn means examining the inter-relationship between climate variations, water supply, land use, economic planning and demographic change. Such questions cannot be dealt with on the basis of national interest only but demand cross-border and cross-disciplinary cooperation.

The above symposium aims to achieve this goal by inviting researchers from a broad range of related disciplines and by encouraging those most directly concerned, decision makers and stakeholders, to work together on long term cooperative solutions to the problems which will have to be faced.

RECENT STUDIES

ICE AGE GIVES CLUES TO GLOBAL WARMING

August 28, 2006, Oslo, Norway

Ice Age evidence confirms that a doubling of greenhouse gases could drive up world temperatures by about 3 Celsius (5.4 Fahrenheit), causing havoc with the climate, a study showed on Friday. The researchers made a novel check of computer climate forecasts about the modern impact of heat-trapping gases, widely blamed on use of fossil fuels, against ice cores and marine sediments from the last Ice Age which ended 10,000 years ago.

"A doubling of carbon dioxide concentrations would cause a global temperature increase of around 3 Celsius," said Thomas Schneider of the Potsdam Institute for Climate Impact Research who led the report.

Temperatures have already risen by 0.6 Celsius since before the Industrial Revolution in the 18th century. Many scientists project that higher temperatures will cause more heatwaves, droughts, floods and rising sea levels. Greenhouse gas concentrations are likely to double from pre-Industrial levels this century unless the world drastically cuts energy use and shifts to clean wind or solar power.

NITROUS OXIDE - NO LAUGHING MATTER FOR FORESTS

16 September 2006, New Scientist

Climate change could cause forests in Europe to spew out more and more nitrous oxide (laughing gas), a potent contributor to global warming. As a greenhouse gas, N₂O is 296 times as potent than carbon dioxide and accounts for 6 per cent of the greenhouse effect.

Klaus Butterbach-Bahl of the Karlsruhe Research Centre in Germany and team members Per Ambus and Sophie Zechmeister-Boltenstern studied N₂O emissions from 11 European forests (Biogeosciences, vol 3, p 135). They found that nitrifying soil bacteria thrive on high nitrogen levels, producing mainly nitrates, which are turned into N₂O by denitrifying bacteria. As

human activity adds more nitrogen to the biosphere, the production of N₂O by the bacteria is likely to increase.

The team also found that deciduous forests made more N₂O than coniferous ones - a concern, as Europe is promoting deciduous forests to increase biodiversity. Worryingly, denitrifying bacteria worked best in warm and moist soil. "If it is going to be warmer and wetter, as predicted for many parts of Europe, then N₂O emissions will go up," says Zechmeister-Boltenstern.

REFERENCES ON CLIMATE CHANGE

- Anand Patwardhan (2006) – *Assessing vulnerability to climate change: The links between objectives and assessment*. Current Science, Vol 90, No. 3, 10 Feb. 2006 : 376 – 383.
- Jayant Sathaye, P. R. Shukla and N. H. Ravindranath (2006) – *Climate change, sustainable development and India. Global and national concerns*. Current Science, Vol 90, No. 3, 10 Feb 2006 : 314 – 325.
- K. Rupa Kumar, A. K. Sahai, K. Krishna Kumar, S. K. Patwardhan, P.K. Mishra, J. V. Revadekar, K. Kamala and G. B. Pant (2006) – *High resolution climate change scenarios for India for the 21st century*. Current Science, Vol 90, No. 3, 10 Feb. 2006 : 334 – 345.
- Ravindranath, N. H, N. V. Joshi, R. Sukumar and A. Saxena (2006) – *Impact of climate change on forests in India*. Current Science, Vol 90, No. 3, 10 Feb. 2006 : 354 – 368.
- Sukla, P. R. (2006) – *India's GHG emission scenarios, aligning development and stabilization paths*. Current Science, Vol 90, No. 3, 10 Feb. 2006 : 384 – 395.
- Subodh Sharma, Sumana Bhattacharya and Amit Garg (2006) – *Green house gas emissions from India: A perspective*. Current Science, Vol 90, No. 3, 10 Feb. 2006 : 326 – 333.

Compiled and Edited By:

Mr. Sandeep Tripathi IFS

Head

Biodiversity and Climate Change (BCC) Division

ICFRE, Dehra Dun

Mr. V. R. S. Rawat

Scientist 'D'

Biodiversity and Climate Change Division

ICFRE, Dehra Dun

Dr. Om Kumar

Scientist 'B'

Biodiversity and Climate Change Division

ICFRE, Dehra Dun

Kindly send suggestions to:

sandeeptrip@icfre.org

rawatvrs@icfre.org

kumarom@icfre.org