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

## **CLIMATE CHANGE INTERNATIONAL NEWS** U. S. - INDIA PARTNERSHIP TO ADVANCE CLEAN ENERGY, ENERGY SECURITY AND CLIMATE CHANGE

19 July, 2011 Washington, DC http://www.state.gov/r/pa/prs/ps/2011/07/168743.htm

Minister of External Affairs S.M. Krishna and Secretary of State Hillary Rodham Clinton reaffirmed their countries' strong commitment to continue ongoing efforts to address climate change, ensure mutual energy security, and build a clean energy economy that will drive investment, job creation, and economic growth throughout the 21st century, including through implementing the 2009 U.S.-India MOU on energy and climate change.

**PACE- Research Efforts:** The U.S.-India Partnership to Advance Clean Energy (PACE) improves energy access and promotes low-carbon growth through the research and deployment of clean energy technologies. The United States and India issued in May 2011 a funding opportunity announcement to establish a Joint Clean Energy Research and Development Center that will mobilize \$25 million of Department of Energy funding over five years for research and development focused on transformational scientific and technological cooperation on building efficiency, solar energy and advanced biofuels.

**PACE- Deployment Grants**: The U.S. Department of State and the U.S. Agency for International Development (USAID) have assisted India in accelerating the transition to a high performing, low emissions and energy secure economy. In addition, the U.S. Trade and Development Agency (USTDA) have made grant commitments for new Smart Grid and solar pilot projects, and USTDA has provided funding support for the U.S.-India Energy Cooperation Program that works with the Indian business community to accelerate the deployment of clean energy technologies. The U.S. Department of Commerce will facilitate expanded trade and commercial partnerships in clean technology products through the trade mission it will take to India in November 2011.

**PACE-Deployment Finance and Risk Insurance**: The United States and India anticipate financing and risk insurance support of hundreds of millions of dollars towards clean energy projects that target India. The Overseas Private Investment Corporation (OPIC) recently approved two new private equity funds, which plan to invest \$600 million in the Asian renewable and clean tech sectors, of which approximately \$350 million will target Indian hydro, biomass, wind, and solar power projects. This follows the approval of a \$300 million South Asia Clean Energy Fund by OPIC, nearly all of which will target India. In addition to more than \$520 million of financing and insurance that OPIC expects to commit for Indian solar power generating projects in India and is considering loans worth an additional \$500 million to support India's growing solar infrastructure. Similarly, the USTDA is evaluating assistance for a growing portfolio of clean energy projects to support PACE.

**Energy Security**: The Energy Dialogue Steering Committee reviewed progress on the numerous PACE initiatives, ongoing Energy Dialogue activities and explored new areas of clean energy collaboration. In addition, the United States and India reiterated the need for continued diplomatic efforts towards the establishment of the Turkmenistan-Afghanistan-Pakistan-India pipeline both for improved energy security in the subcontinent and the relatively clean energy natural gas would provide. Both countries will continue to work together to advance energy security and help ensure secure, reliable, and affordable energy supplies.

**Collaboration on Climate Activities**: The United States and India continue to collaborate on reducing short-lived climate forcers through efforts such as the Global Methane Initiative, the U.S-India Task Force on HFCs, and our respective domestic black carbon research initiatives. These pollutants have disproportionate short-term impacts on the climate and cause adverse health and environmental effects at the local and regional scale. U.S. and Indian leaders also discussed the upcoming 17th Conference of Parties under the UN Framework Convention on Climate Change in Durban, South Africa, and reaffirmed their intention to work together toward making operational agreements reached in Cancun, Mexico. The two countries underscored their commitment to focus their collaborative work on issues of common importance, including clean technology, adaptation, and transparency.

## RISING CARBON DIOXIDE COULD REVERSE DRYING EFFECTS OF HIGHER TEMPERATURES ON RANGELANDS

3 August, 2011 Science Daily http://www.:sciencedaily.com/releases/2011/08/110803143140.htm

Rising carbon dioxide  $(CO_2)$  levels can reverse the drying effects of predicted higher temperatures on semi-arid rangelands, according to a study published in the journal *Nature* by a team of U.S. Department of Agriculture (USDA) and university scientists.

Warmer temperatures increase water loss to the atmosphere, leading to drier soils. In contrast, higher  $CO_2$  levels cause leaf stomata pores to partly close, lessening the amount of water vapor that escapes and the amount of water plants draw from soil. This new study finds that  $CO_2$  does more to counterbalance warming-induced water loss than previously expected. In fact, simulations of levels of warming and  $CO_2$  predicted for later this century demonstrated no net change in soil water, and actually increased levels of plant growth for warm-season grasses.

"By combining higher temperatures with elevated  $CO_2$  levels in an experiment on actual rangeland, these researchers are developing the scientific knowledge base to help prepare managers of the world's rangelands for what is likely to happen as climate changes in the future," said Edward B. Knipling, administrator of the Agricultural Research Service (ARS), USDA's principal intramural scientific research agency. The results cover the first four years of the eight-year Prairie Heating and  $CO_2$  Enrichment (PHACE) experiment on native northern mixed grass rangeland. The study is being conducted by the ARS Rangeland Resources Research Unit (RRRU) at the High Plains Grasslands Research Station near Cheyenne, Wyo.

ARS plant physiologist Jack Morgan leads the study, which uses both  $CO_2$  pipelines and thermal infrared heaters to simulate global warming conditions predicted for the end of the century: 600 parts per million (ppm) of  $CO_2$  compared to today's average 390 ppm and day/night temperatures raised by 3 and 5 degrees Fahrenheit, respectively. Based on these findings, warmer temperatures would likely play a role in changing the relative success of various grass types. "Only the warm-season grasses had their growth boosted higher by  $CO_2$ and warmer temperatures," Morgan said. "If this leads to a competitive advantage for warmseason grasses, it may increase the challenges faced by ranchers who desire cool-season grasses for early-season forage."

Elise Pendall and David Williams at the University of Wyoming at Laramie and Matthew Wallenstein at Colorado State University at Fort Collins also are participating in the study, which will be completed in 2013. Retired ARS soil scientist Bruce Kimball, designer of the infrared heater system, is helping conduct the study. Kimball serves as a research collaborator at the ARS U.S. Arid-Land Agricultural Research Center in Maricopa, Ariz.

## CARBON SINK: UP AND COMING FORESTS REPLACING AGING FORESTS OF UPPER GREAT LAKES

11 August, 2011 Science Daily http://www.sciencedaily.com/releases/2011/08/110810085542.htm

The aging forests of the Upper Great Lakes could be considered the baby boomers of the region's ecosystem. The decline of trees in this area is a cause for concern among policymakers and ecologists who wonder whether the end of the forests' most productive years means they will no longer offer the benefits they are known for: cleansed air, fertile soil, filtered water and, most important to climate change analysts, carbon storage that offsets greenhouse gas emissions.

A team of ecologists led by Ohio State University researchers says, however, that coming up right underneath the old forests is a new generation of native trees that are younger, more diverse and highly competitive. They represent a vast unknown compared to what ecologists have long theorized about how forests work as carbon sinks, but these researchers expect the next generation to carry on the important work of carbon storage.

"There's a conventional theory that aging forests, for a variety of reasons, store less carbon over time. We contend that that may be true in certain systems that are less species-rich. But in our forests in the Midwest, the tree species we will end up with are much different from what we started with," said Peter Curtis, professor and chair of evolution, ecology and organismal biology at Ohio State and a lead investigator on this research.

"We argue that in this case, as forests age, they get rejuvenated with younger individuals of different species a more complex and diverse community will be replacing the old guard. They may even outdo the boomer generation and be more productive." Curtis and colleagues base their predictions on preliminary findings from a project in which they have accelerated the generational shift in part of a forest in northern Michigan. By cutting strips of bark from thousands of aspen trees to hasten their death, the scientists are able to observe the characteristics of the trees that will replace this 100-year-old cohort.

So far, the scientists are finding that the canopy created by the newcomers' leaves use light more efficiently to manufacture carbohydrates and release oxygen through photosynthesis than did the aspen canopy that preceded it. The researchers also are able to use sophisticated instruments to quantify nitrogen cycling in the transitioning forest, and observe that nitrogen losses throughout the system are small even with the death of thousands of trees. As long as nitrogen remains available within tree wood and leaves as well as in the soil for the trees to renew themselves annually, the forest will continue to function as an effective carbon sink.

Curtis presented portions of the research on August 10 at the Ecological Society of America annual meeting in Austin, Texas. The research team conducts its work at the University of Michigan Biological Station (UMBS). The composition of this forested research facility is representative of the forests stretching about 40,000 square miles -- the equivalent of the land mass of Ohio -- across the entire upper Midwest. Aspens compose the vast majority of old trees in the region, cropping up quickly after a period of deforestation between 1880 and 1920 that was followed by abandonment of the land and a rash of wildfires.

## POLAR CLIMATE CHANGE MAY LEAD TO ECOLOGICAL CHANGE

#### 11 August, 2011 Science Daily http://www.sciencedaily.com/releases/2011/08/110811162817.htm

Ice and frozen ground at the North and South Poles are affected by climate change induced warming, but the consequences of thawing at each pole differ due to the geography and geology, according to a Penn State hydrologist.

"The polar regions, particularly the Arctic, are warming faster than the rest of the world," Michael N. Gooseff, associate professor of civil and environmental engineering, told attendees August 11 at the 96th annual meeting of the Ecological Society of America in Austin, Texas. "As a consequence, polar ecosystems respond directly to changes in the Earth systems at the poles." These changes, though different at each pole, could be significant in their effects on not only the local environment, but also globally. While the central part of the Arctic is composed of ice over water, northern Canada, Alaska, Siberia and Greenland all have landmasses within the Arctic Circle. The associated land and water ecosystems are affected by melting ice and thawing soils, but in Antarctica, where much of the ice overlays a continent, the warming alters streams, lakes and the tiny plants and animals that live there. "Our focus on the north is in part because it is inhabited, but it is also because the ice there is more vulnerable," said Gooseff. "Temperatures and snow and rain across the tundra shifts annually and seasonally. We know that fall is beginning later than it once did."

In the Arctic, where there is more immediate feedback from the higher temperatures, the warming is degrading permafrost, the layer of the ground that usually remains frozen during annual thawing events. This causes creation of a boggy, uneven landscape with a disturbed surface. Subsequent rain or snowmelt can erode this surface carrying silt and sediment into bodies of water, changing the paths of rivers and streams. Debris flows are also a common occurrence in degraded permafrost areas. "Algae, insects and fish all must deal with this increased level of sediments," said Gooseff. Extended frost-free time causes soils that do thaw annually to have longer active periods when microbes can mineralize nutrients. While the soils remain frost free longer, plants continue their normal cycle dictated by the length and intensity of daylight, which has not changed. Microbes may continue to create nutrients, but the plants no longer use them, so that when rain or melt water comes the nutrients leach into the rivers and streams.

"That is exactly what we are seeing," said Gooseff. "In September and October, we see a substantial increase in nutrients in the water. Concentrations increase many times for nutrients such as nitrate and ammonium." Another problem with degrading permafrost is the release of the carbon that was permanently trapped in frozen organic materials in the frozen ground. Warming will eventually liberate carbon dioxide and methane into the atmosphere.

"It is estimated that the permafrost contains twice the amount of carbon that is currently in our atmosphere," said Gooseff. We think of Antarctica as a vast empty place, but lakes and streams exist in several polar desert oases, including the McMurdo Dry Valleys. These bodies of water are filled with a variety of life including microbial mats, plankton and filamentous algae. "While there are no bugs or fish in these waters, there are diverse microbial communities," said Gooseff. "Some algae in the dry valleys go dormant for nine months or more and then begin to grown when hit by melt water." Because there is so much permanent ice in Antarctica, the annual impact of increased temperatures on its environment is slower than in the Arctic. The huge expanse of white ice reflects some of the heat energy into the atmosphere.

"We expect in the next several decades that we will see the Antarctic start to warm up," said Gooseff.

## INCREASED TROPICAL FOREST GROWTH COULD RELEASE CARBON FROM THE SOIL

#### 15 August, 2011 Science Daily

http://www.sciencedaily.com/releases/2011/08/110814141445.htm

A new study shows that as climate change enhances tree growth in tropical forests, the resulting increase in litter fall could stimulate soil micro-organisms leading to a release of stored soil carbon.

The research was led by scientists from the Centre for Ecology & Hydrology and the University of Cambridge, UK. The results are published online in the journal *Nature Climate Change*.

The researchers used results from a six-year experiment in a rainforest at the Smithsonian Tropical Research Institute in Panama, Central America, to study how increases in litter fall -- dead plant material such as leaves, bark and twigs which fall to the ground might affect carbon storage in the soil. Their results show that extra litter fall triggers an effect called 'priming' where fresh carbon from plant litter provides much-needed energy to micro-organisms, which then stimulates the decomposition of carbon stored in the soil.

Lead author Dr Emma Sayer from the UK's Centre for Ecology & Hydrology said, "Most estimates of the carbon sequestration capacity of tropical forests are based on measurements of tree growth. Our study demonstrates that interactions between plants and soil can have a massive impact on carbon cycling. Models of climate change must take these feedbacks into account to predict future atmospheric carbon dioxide levels."

The study concludes that a large proportion of the carbon sequestered by greater tree growth in tropical forests could be lost from the soil. The researchers estimate that a 30% increase in litter fall could release about 0.6 tonnes of carbon per hectare from lowland tropical forest soils each year. This amount of carbon is greater than estimates of the climate-induced increase in forest biomass carbon in Amazonia over recent decades. Given the vast land surface area covered by tropical forests and the large amount of carbon stored in the soil, this could affect the global carbon balance.

Tropical forests play an essential role in regulating the global carbon balance. Human activities have caused carbon dioxide levels to rise but it was thought that trees would respond to this by increasing their growth and taking up larger amounts of carbon. However, enhanced tree growth leads to more dead plant matter, especially leaf litter, returning to the forest floor and it is unclear what effect this has on the carbon cycle.

Dr Sayer added, "Soils are thought to be a long-term store for carbon but we have shown that these stores could be diminished if elevated carbon dioxide levels and nitrogen deposition boost plant growth."

## GLOBAL TEMPERATURES WERE SEVENTH WARMEST ON RECORD FOR JULY

#### 15 August, 2011 NOAA

http://www.noaanews.noaa.gov/stories2011/20110815\_globalstats.html

The globe experienced its seventh warmest July since record keeping began in 1880. July's Arctic sea ice extent was the smallest on record for that month since records began in 1979. The monthly analysis from NOAA's National Climatic Data Center is part of the suite of climate services NOAA provides government, business and community leaders so they can make informed decisions.

Global Temperature Highlights: July

- The combined global land and ocean average surface temperature for July 2011 was the seventh warmest on record for that month at 61.43 F (16.37 C), which is 1.03 F
- (0.57 C) above the 20th century average of 60.4 F (15.8 C). The margin of error associated with this temperature is +/- 0.16 F (0.09 C).
- Separately, the global land surface temperature for July was 1.51 F (0.84 C) above the 20th century average of 57.8 F (14.3 C), making it the fifth warmest July on record. The margin of error is +/- 0.23 F (0.13 C). Warmer-than-average conditions occurred across Northern Europe, western and eastern Russia, and most of North America. Cooler-than-average regions included central Russia, Western Europe, much of the western United States, and southwestern Canada.
- The July global ocean surface temperature was 0.85 F (0.47 C) above the 20th century average of 61.5 F (16.4 C), making it the 11th warmest July on record. The margin of error is +/- 0.07 F (0.04 C). The warmth was most pronounced across Baffin Bay and the Labrador Sea in the Northern Hemisphere high latitudes and in the north central and northwestern Pacific Ocean.
- July 2011 temperatures were above normal for all states and territories in Australia for the first month since April 2010. La Niña conditions during 2010/11 kept temperatures below normal across most of the country for more than a year.
- The United Kingdom average monthly July temperature of 57.4 F (14.1 C) was the coolest July temperature since 2000 at 0.9 F (0.5 C) below the long-term average, which dates to 1910. The average minimum July temperature was the coolest for this month since 1980. Dublin Airport reported its coolest July in 46 years, with an average temperature of 56.8 F (13.8 C).

## LOCK CO<sub>2</sub> IN ROCKS TO STOP GLOBAL WARMING: BASALT TO COMBINE WITH CO<sub>2</sub> TO FORM LIMESTONE

30 August, 2011 The Times of India, New Delhi

Hellisheidi, Iceland: Sometime next month, on the steaming fringes of an Icelandic volcano, an international team of scientists will begin pumping "seltzer water" into a deep hole, producing a brew that will lock away carbon dioxide forever. Chemically disposing of  $CO_2$ , the chief greenhouse gas blamed for global warming, is a kind of 21st-century alchemy that researchers and governments have hoped for to slow or halt climate change.

The American and Icelandic designers of the "CarbFix" experiment will be capitalizing on a feature of the basalt rock underpinning 90 percent of Iceland: It is a highly reactive material that will combine its calcium with a carbon dioxide solution to form limestone, permanent, harmless limestone. The researchers caution that their upcoming 6-to-12-month test could fall short of expectations, and warn against looking for a climate "fix" from CarbFix any year soon.

In fact, one of the objectives of the project, whose main sponsors are Reykjavik's cityowned utility and US and Icelandic universities, is to train young scientists for years of work to come. A scientific overseer of Carb Fix, the man, as it happens, who also is credited with coining the term "global warming" four decades ago, says the world's failure to heed those early warnings, to rein in greenhouse-gas emissions from coal, gasoline and other fossil fuels, is driving scientists to drastic approaches.

"Whether we do it in the next 50 years, or the 50 years after that, we're going to have to store carbon dioxide," Columbia University's Wallace S. Broecker said in an interview in New York. The world is already storing some carbon dioxide. As a byproduct of Norway's natural gas production, for example, it is being pumped into a sandstone reservoir beneath the North Sea. But people worry that such stowed-away gas could someday escape, while carbon dioxide transformed into stone would not. The experimental transformation will take place below the dramatic landscape of this place 29 kilometers (18 miles) southeast of Reykjavik.

## UNFCCC PRESS RELEASE: CAPE TOWN MEETING PROVIDES GOVERNMENTS WITH OPPORTUNITY TO MAKE REAL PROGRESS ON GREEN CLIMATE FUND AT COP17 IN DURBAN

21 October, 2011 United Nations Framework Convention on Climate change2011http://unfccc.int/files/press/news\_room/press\_releases\_and\_advisories/applicati on/pdf/press\_release\_20112110.pdf

Stellenbosch: The Transitional Committee tasked with designing the Green Climate Fund concluded its last preparatory meeting before the UN Climate Change Conference in Durban. Meeting in Cape Town from 16 to 18 October, the committee ended its work by submitting a draft instrument for the Green Climate Fund and recommendations on transitional arrangements to get the fund launched quickly. As a next step, this operational

instrument will be considered by the highest decision-making body at the UN Climate Change Conference in Durban from 28 November to 9 December 2011.Notwithstanding the fact that the Transitional Committee was unable to reach full consensus on the draft instrument, Christiana Figueres, the UN's climate chief hailed the conclusion of the committee's work. Speaking from Stellenbosch, South Africa, she said: "By forwarding this important operational instrument to the Durban conference for consideration, governments have the opportunity to make real progress on the Green Climate Fund in December."The rulebook, or operational instrument, reflects a well balanced approach to operationalising the fund while also taking into account the diversity of needs and interests of all countries."Governments have worked very hard during the course of 2011 to arrive at this operational instrument. It is my hope that the UN Climate Change Conference will both consider and approve the document as it now stands," Ms Figueres said. "Following this approval it is expected that governments will soon nominate members of the Fund's Board," she added. Enabled by flexibility, the Board will steer the fund's operations and oversee its evolution into the key fund for climate finance.

In another follow-on step, countries will need to establish a clear process for selecting a host venue for the Fund. "These are critical developments on the road to strengthened and better supported climate change action," Ms Figueres concluded.

UNFCCC Press Office About the UNFCCC With 195 Parties, the United Nations Framework Convention on Climate Change (UNFCCC) has near universal membership and is the parent treaty of the 1997 Kyoto Protocol. The Kyoto Protocol has been ratified by 193 of the UNFCCC Parties. Under the Protocol, 37 States, consisting of highly industrialized countries and countries undergoing the process of transition to a market economy, have legally binding emission limitation and reduction commitments. The ultimate objective of both treaties is to stabilize greenhouse gas concentrations in the atmosphere at a level that will prevent dangerous human interference with the climate system.

## WETLANDS: DRYING INTEENSIFYING WILDFIRES, CARBON RELEASE NINEFOLD, STUDY FINDS

1 November, 2011 Science Daily http://www.sciencedaily.com/releases/2011/11/11101125553.htm

Drying of northern wetlands has led to much more severe peatland wildfires and nine times as much carbon released into the atmosphere, according to new research led by a University of Guelph professor.

The study, published November 1 in *Nature Communications*, is the first to investigate the effect of drainage on carbon accumulation in northern peatlands and the vulnerability of that carbon to burning. "Russia, Indonesia and Canada all have abundant peatlands, but they also have been hotspots for intense peat fires in the past decade," said Guelph professor Merritt Turetsky, who worked on the study with William Donahue of the Water Matters Society of Alberta and Brian Benscoter from Florida Atlantic University.

In pristine states, peatlands often resist fire because of their wet soils. "Our study shows that when disturbance lowers the water table, that resistance disappears and peat becomes very flammable and vulnerable to deep burning," she said. Recently, destructive peat fires

plagued the Moscow region. In the late 1990s, severe Indonesian fires in drained peatlands released carbon equivalent to 40 per cent of annual global fossil fuel emissions. "Our results demonstrate the importance of cumulative impacts," Turetsky said.

Peatlands store vast amounts of carbon by pulling carbon dioxide out of the atmosphere. For millennia, they've accumulated plant debris -- the remains of wood, moss, and other plants -- and locked it up in layers of saturated peat more than five meters deep in places. Northern peat covers large swaths of the landscape. Because about half of that peat consists of carbon, it is a globally important carbon pool. But peatlands are also carbon sources, as this same debris fuels wildfires. "While fire is a widely recognized disturbance in upland forests, the impacts of fire on peatlands and their carbon storage have been largely overlooked," said Benscoter.

The majority of the world's peatlands are located in northern regions, and Canada is home to some of the largest on the planet. "The extensive deposits of peat in Canada are an important natural resource, but one that is being disturbed more often, not only by wildfire but also by human activities," Turetsky said.

Previous studies have documented the effects of land use practices and global warming on the ecology of peatlands. "But we wanted to examine how decades of lowered water table in peatlands might affect wildfire behaviour, and that required a very large experiment." To determine those effects, the researchers used a unique outdoor laboratory. A large section of a boreal fen near Slave Lake, Alta., had been drained over 20 years ago in a wetland drainage project. A portion of the fen including drained and pristine plots burned in a wildfire in 2001 allowed for a natural experiment.

Earlier research had documented increases in tree growth and carbon storage after drainage. "But nobody had looked at the impacts of dewatering on fire intensity and associated carbon gains or losses," Donohue said.

The results were surprising, he said. Long-term drainage actually increased tree productivity and carbon storage in the fen soils. But the lower water table also changed wildfire conditions, and losses of soil carbon to burning in the drained areas increased ninefold. "Even though the organic matter accumulation doubled over two decades after drainage, severe burning triggered the complete loss of this newly stored carbon, plus a further 450 years' worth of peat accumulation," Donahue said.

"Currently, peatlands are considered important global stores for carbon. But we've shown that human disturbance or climate-induced drying can switch peatlands from sinks to potentially huge sources of carbon, with losses associated with severe burning far outweighing long-term rates of sequestration."

## **BASIC NOD TO INDIA'S STAND ON CLIMATE TALKS**

Nitin Sethi, 2 November, 2011 The Times of India, New Delhi http://articles.timesofindia.indiatimes.com/2011-11-02/pollution/30349503\_1\_g77-richcountries-basic-meeting Environment Minister Jayanthi Natarajan notched a victory at the BASIC talks in Beijing with China and other countries cutting across groups strongly backing India's demand for centre-staging discussions on equity, IPR and trade in UN climate change negotiations on Tuesday.

While noting that the emerging economies, along with other developing countries, had committed more to fight climate change than the rich countries, India's restored stance on climate change also found support from China and Brazil.South Africa advocated that talks at Durban launch formal negotiations for a new compact bringing emerging economy under international commitments as well. But India, China and Brazil were united in opposing such a proposition noting that the developed world was yet to deliver on existing commitments and was asking for more flexibility from the BASIC group without any returns. India's restored position against uneven compromises at the UN talks was echoed by Brazil and China, ensuring that the formal BASIC statement did not refer to the issue. Natarajan won support for the inclusion of equity, IPR and trade issues on climate agenda for Durban from not only the three BASIC countries but also Argentina heading the G77 grouping, Grenada on behalf of small island states and Egypt representing Arab countries. The three were present as observers at the Beijing meeting.

The four BASIC countries stated in a joint statement, "Ministers underlined the importance of the Indian proposal to include the issues of equity, trade and intellectual property... they agreed that discussions on these important issues, which are crucial to many developing countries, would contribute to comprehensive and balanced outcome at Durban."

At the ministerial level talks held recently at Pretoria, South Africa had pushed more strongly for formally starting talks on a new deal but at Beijing, it was hemmed in by the unanimity shown by other three BASIC countries. At Pretoria, it had faced opposition to the proposal, which was initially fathered by the EU, from not just the three BASIC countries but also from the US, UAE, Indonesia and South Korea.

At the two-day BASIC meeting in Beijing, the four countries upped the stakes on Kyoto Protocol with a warning that they would not support carbon trading with those developed countries which did not commit to targets under the second phase of Kyoto Protocol. Carbon trading allows the developed countries to find cheaper avenues of reducing greenhouse gases, instead of undertaking mitigation actions at a higher cost in their backyard.

Also choking off any attempt by developed countries to use an impending review of achievements under the treaty to rewrite the UN climate convention, the four also took a common position that the appraisal should include assessment of the adequacy of global temperature goal, the sufficiency of targets of the rich countries and their financial and technological support to the developing world.

# EQUITY CENTRAL TO GLOBAL DEAL ON CLIMATE CHANGE

7 December, 2011 The Times of India New Delhi

Durban: India is open to discussion on a new legally binding climate change treaty but the principle of equity - the right of developing nations -- should be central to it, Environment Minister Jayanthi Natarajan said.

"I have come to Durban with an open mind. But I would like to know whether it would be binding only for mitigation and whether it will be the same for Annex-1 (developed) and non-Annex-1 (developing) countries," Natarajan told reporters during a side event. Natarajan, who took over as head of the Indian delegation Monday said: "We are not against any solution to the goal of climate stabilization" I need to know before this is achieved how will equity figure in the climate change debate? How will IPR issue figure and how transfer of technology and unilateral trade measures figure I will also like the answer (to) how they grow," will meet developing countries imperatives she asked. to The event was organised by the environment ministry and the Centre for Science and Environment (CSE). The minister emphasised on the issue of equity saying it should be central to any debate. "We are here to find a solution and are committed to it. Equity is central to debate on climate change and this is what we believe. We need to take it as not just climate imperative but social imperative and development imperative," she said.

She said India is most vulnerable to climate change but at the same time has the right to grow. Rejecting reports that India is being seen as a deal breaker, Jayanthi said: "I don't believe we are standing out ... we are embedded firmly in BASIC (Brazil, South Africa, India and China) countries and all of us are on the same page as far important issues are concerned."

## HIMALAYAN REGION A GLOBAL WARMING HOTSPOT: REPORTS.

### **Glaciers in central and eastern Himalayas Shrinking**

Subodh Varma, The Times of India, New Delhi 7 December, 2011

Remember the embarrassing controversy a few years ago about whether or not Himalayan glaciers are retreating due to global warming? Finally, the foundation for a thorough scientific study and monitoring has been laid, with the release of three key reports on the sidelines of the Durban climate change summit.

Prepared by scientists working with the Kathmandu-based International Center for Integrated Mountain Development (ICIMOD) the reports have for the first time identified over 54,000 glaciers spread over 64,000 square kilometers of the Hindu Kush-Himalaya (HKH) region, home to some of the world's highest peaks and the biggest storehouse of freshwater outside of the North and South Poles.

The reports clearly say that not enough study has been done on the snow and ice systems of this vast ecologically fragile system. But it provides a snapshot of kind of changes that

global warming is likely to cause in the coming decades. Within the HKH region lie the origins of 10 crucial river systems that provide life to an estimated 1.3 billion people. These rivers - Ganga, Brahmaputra, Indus, Amu Darya, Irrawaddy, Mekong, Salween, Tarim, Yangtze, and Yellow - flow through 10 nations. This makes it a global warming hotspot-changes in temperature can lead to rapid and devastating changes in river water flows that would affect millions.

"Up until now, there has been complete uncertainty on the numbers and area of glaciers and the present status of their environmental conditions in the region. This research give us a baseline from which to measure the potential impact of climate change," said Basanta Shrestha from ICIMOD.

One of the report points out that only 10 glacier systems have been thoroughly studied till date. So, information is patchy and incomplete. "Glaciers in the central and eastern Himalayas are shrinking, while changes in the western Himalayas and Karakoram are more uncertain," says the report 'Climate Change in Hindu-Kush Himalayas'.

Based on data collected by the Snow and Avalanche Study Establishment, Chandigarh, the report says that average winter temperature in the Indian part of the region increased by 0.6 to 1.3 degrees celsius between 1975 and 2006. Besides this, there were other clear signs of warming: the number of warmer days increased, the number of cold nights decreased, there was more rain and less snowfall and consecutive number of dry days went up while wet days went down.

Latest studies show that river water flows are likely to be affected in much more complex ways than earlier imagined. While increasing temperature will cause snow and glaciers to dry up causing less water in the rivers 40-50 years into the future, this would be swamped by the much higher increase in monsoon rains in central and eastern Himalayas. The ICIMOD reports indicate that much more research is needed to fully understand these dynamics.

The reports also spell out a complex struggle for the over 25,000 species of plants and animals that inhabit the HRH region. As temperatures rise, all species will try to move upwards to cooler locations. This will spell doom for summit species- inhabiting the topmost levels-like the brown oak. With a 1 degree rise, almost 40% cover of this common tree will be wiped out.

## **BASIC UNITY ON SHOW FOR POST-'20 DEAL**

#### NitinSethi

8 December, 2011 The Times of India New Delhi

Durban: It was BASIC countries' day at Durban on Tuesday with the ministers of South Africa, India, Brazil and China forcefully restating their joint position on a new legally binding deal to a packed house at the convention hall.

With rumours swirling in the International Convention Centre of Durban about a divide between the four emerging economies every word was read into by hundreds of journalists gathered at the first BASIC media outing at Durban. The message was clear. The four had not deviated from their original line drawn at the last BASIC meeting - they are ready to look at the possibility of a new deal post-2020 after a review of the existing convention had been completed and several other long-standing conditions met by the developed world.

The Chinese minister Xie Zhenhua said, "There are more rumours in this convention centre than rooms. And the rumours are about divisions between the BASIC countries. They are incorrect." He then went on to restate the joint position and China's caveats for a new single legal binding compact that TOI had reported earlier. In sync, Indian environment minister Jayanthi Natarajan said, "We have already walked the extra mile and in fact are doing more than what our partners are doing."

She added, "In these negotiations some countries have projected the question of legally binding agreement in future as a panacea for climate change. This question confuses the implementation with ambition (to cut emissions)."

She reiterated, as TOI had reported earlier noting that the question of equity, intellectual property rights on green technologies and trade barriers needed to be resolved first. She had said to TOI, "I have come to Durban with an open mind," she told TOI on Monday night after a presentation on equity by India. But I would like to know whether it would be binding only for mitigation and whether it will be same for Annex-1 (developed countries) and non-Annex1 (developing countries) countries. Commitment for finance and technology, whether it will be present or not, how will equity figure in such an agreement, how will IPR behandled."

Brazil then added on that while it was in favour of such a deal too it agreed with the caveats raised by China and India and thought such a deal should take place post-2020. The South African minister too affirmed that the host country stood by the original BASIC statement even as it worked along with BASIC and other disagreeing countries such as EU to find a solution.

The four ministers did not hedge on their views setting up an eyeball to eyeball match for the remaining days of the climate negotiations.

## TIME FOR RICH TO FULFIL GREEN PROMISES

Nitin Seth 9 December, 2011 The Times of India New Delhi

Durban: It is time for the developed countries to step up and fulfill their obligations under the UN Framework Convention on Climate Change and Kyoto Protocol, Environment Minister Jayanth Natarajan said before political heads of 195 countries at the Durban climate meet. She recalled that India had under taken strides towards a more green economy despite the imperatives of development and growth. Her speech came against the backdrop of victories the minister has notched at the talks with key countries agreeing to anchor the principle of equity into any new deal. On a strong note, she noted that developed countries had not met their existing legal obligations under the climate convention, while India had taken new and additional measures to reduce the carbon intensity of its growth by almost 30% in just six years, when measured in the grams of oil used to generate every dollar of national income. She recalled Prime Minister Manmohan Singh's offer to the rest of the world that India would follow a growth path that will help us remain sustainable. She said the country would "not emulate the fossil intense growth plan followed by developed countries in the past" She reiterated her position on the possibility of a new single legally binding treaty , stating that the developed world needed to explain its position on several key issues before that. This included, She said, a legally sold continued future of the Kyoto Protocol.

## DURBAN CONFERENCE DELIVERS BREAKTHROUGH IN INTERNATIONAL COMMUNITY'S RESPONSE TO CLIMATE CHANGE

(Press Release) United Nations Climate Change Secretariat 11 December, 2011 Durban

Countries meeting in Durban, South Africa, have delivered a breakthrough on the future of the international community's response to climate change, whilst recognizing the urgent need to raise their collective level of ambition to reduce greenhouse gas emissions to keep the average global temperature rise below two degrees Celsius.

We have taken crucial steps forward for the common good and the global citizenry today. I believe that what we have achieved in Durban will play a central role in saving tomorrow, today,. said Maite Nkoana-Mashabane, South African Minister of International Relations and Cooperation and President of the Durban UN Climate Change Conference (COP17/CMP7).

I salute the countries who made this agreement. They have all laid aside some cherished objectives of their own to meet a common purpose - a long-term solution to climate change. I sincerely thank the South African Presidency who steered through a long and intense conference to a historic agreement that has met all major issues said Christiana Figueres, Executive Secretary of the United Nations Framework Convention on Climate Change (UNFCCC).

In Durban, governments decided to adopt a universal legal agreement on climate change as soon as possible, but not later than 2015. Work will begin on this immediately under a new group called the Ad Hoc Working Group on the Durban Platform for Enhanced Action.

Governments, including 35 industrialised countries, agreed a second commitment period of the Kyoto Protocol from January 1, 2013. To achieve rapid clarity, Parties to this second period will turn their economy-wide targets into quantified emission limitation or reduction objectives and submit them for review by May 1, 2012.

This is highly significant because the Kyoto Protocol's accounting rules, mechanisms and markets all remain in action as effective tools to leverage global climate action and as models to inform future agreements Ms. Figueres said.

significantly advanced framework for the reporting of emission reductions for both developed and developing countries was also agreed, taking into consideration the common but differentiated responsibilities of different countries. In addition to charting the way forward on reducing greenhouse gases in the global context, governments meeting in South Africa agreed the full implementation of the package to support developing nations, agreed last year in Cancun, Mexico.

This means that urgent support for the developing world, especially for the poorest and most vulnerable to adapt to climate change, will also be launched on time, said Ms Figueres. The package includes the Green Climate Fund, an Adaptation Committee designed to improve the coordination of adaptation actions on a global scale, and a Technology Mechanism, which are to become fully operational in 2012 (see below for details).

Whilst pledging to make progress in a number of areas, governments acknowledged the urgent concern that the current sum of pledges to cut emissions both from developed and developing countries is not high enough to keep the global average temperature rise below two degrees Celsius. They therefore decided that the UN Climate Change process shall increase ambition to act and will be led by the climate science in the IPCC.s Fifth Assessment Report and the global Review from 2013-2015.

While it is clear that these deadlines must be met, countries, citizens and businesses who have been behind the rising global wave of climate action can now push ahead confidently, knowing that Durban has lit up a broader highway to a low-emission, climate resilient future, said the UNFCCC Executive Secretary.

The next major UNFCCC Climate Change Conference, COP 18/ CMP 8, is to take place 26 November to 7 December 2012 in Qatar, in close cooperation with the Republic of Korea.

## Details of key decisions that emerged from COP17 in Durban Green Climate Fund

- Countries have already started to pledge to contribute to start-up costs of the fund, meaning it can be made ready in 2012, and at the same time can help developing countries get ready to access the fund, boosting their efforts to establish their own clean energy futures and adapt to existing climate change.
- A Standing Committee is to keep an overview of climate finance in the context of the UNFCCC and to assist the Conference of the Parties. It will comprise 20 members, represented equally between the developed and developing world.
- A focussed work programme on long-term finance was agreed, which will contribute to the scaling up of climate change finance going forward and will analyse options for the mobilisation of resources from a variety of sources.

#### Adaptation

• The Adaptation Committee, composed of 16 members, will report to the COP on its efforts to improve the coordination of adaptation actions at a global scale.

• The adaptive capacities above all of the poorest and most vulnerable countries are to be strengthened. National Adaptation Plans will allow developing countries to assess and reduce their vulnerability to climate change.

• The most vulnerable are to receive better protection against loss and damage caused by extreme weather events related to climate change.

#### Technology

• The Technology Mechanism will become fully operational in 2012.

• The full terms of reference for the operational arm of the Mechanism - the Climate Technology Centre and Network - are agreed, along with a clear procedure to select the host. The UNFCCC secretariat will issue a call for proposals for hosts on 16 January 2012.

#### Support of developing country action

• Governments agreed a registry to record developing country mitigation actions that seek financial support and to match these with support. The registry will be a flexible, dynamic, web-based platform.

#### Other key decisions

- A forum and work programme on unintended consequences of climate change actions and policies were established.
- Under the Kyoto Protocol's Clean Development Mechanism, governments adopted procedures to allow carbon-capture and storage projects. These guidelines will be reviewed every five years to ensure environmental integrity.
- Governments agreed to develop a new market-based mechanism to assist developed countries in meeting part of their targets or commitments under the Convention. Details of this will be taken forward in 2012.

#### About the UNFCCC

With 195 Parties, the United Nations Framework Convention on Climate Change (UNFCCC) has near universal membership and is the parent treaty of the 1997 Kyoto Protocol. The Kyoto Protocol has been ratified by 193 of the UNFCCC Parties. Under the Protocol, 37 States, consisting of highly industrialized countries and countries undergoing the process of transition to a market economy, have legally binding emission limitation and reduction commitments. The ultimate objective of both treaties is to stabilize greenhouse gas concentrations in the atmosphere at a level that will prevent dangerous human interference with the climate system.

See also: unfccc.int

## **CLIMATE CHANGE NATIONAL NEWS**

## METRO EARNS RS 47 CRORE CARBON CREDIT POINTS FROM UN: FIST RAILWAY PROJECT IN THE WORLD TO GET RECOGNATION

26 September, 2011 The Times of India TNN

New Delhi: The next time you travel by the Metro, pat yourself on the back. Thanks to the shift in commuter preference, Delhi Metro has become the first such railway project in the world to get carbon credits from the United Nations for helping in reduction of greenhouse emissions.

The certification, as part of the UN's Clean Development Mechanism (CDM) under the Kyoto Protocol, says the Delhi Metro Rail Corporation (DMRC) has helped in reduction in emission of harmful gases into the city's atmosphere. In the process, it has earned carbon credits worth about Rs 47 crore annually for the next seven years. "With the increase in number of passengers, this figure shall increase," said a DMRC spokesperson.

The feat has been possible with more people using the Metro, and thus taking other types of polluting vehicles off roads. According to the UN, Delhi Metro has helped in reducing pollution levels in the city by 6.3 lakh tonnes every year, thereby helping in mitigating impacts of global warming. "Today, about 18 lakh people travel by Delhi Metro that is completely non-polluting and environment-friendly. But for the Metro, these people would have travelled by cars, buses, two/three wheelers, which would have resulted in GHG emission," the statement says. GHG gases include carbon dioxide, carbon monoxide, nitrogen oxide, particulate matter and others.

This is the second CDM project of Delhi Metro to be registered with the UN body in the last three years. Metro's first CDM project was on regenerative braking - a technique for reducing power consumption.

"Every passenger who chooses to use Metro instead of car/bus contributes in reduction in emissions to the extent of approximately 100gm of carbon dioxide for every trip of 10km and, therefore, becomes party to the reduction in global warming," said the spokesperson.

According to figures by DMRC, more than 91 thousand vehicles have been removed from Delhi's roads because of Delhi Metro project.

## INDIA WILL STICK TO EQUITY IN CLIMATE TALKS: NATARAJAN

Nitin Sethi, 18 November, 2011 Times of India, TNN

NEW DELHI: Historical responsibility and equity are at the heart of India's International climate change stance again. Environment Minister Jayanthi Natarajan stated that India

would insist on unconditional commitments under Kyoto Protocol II by the developed countries and would not agree to talks on a new legally binding deal at Durban.

Natarajan's first elaborate public statement on climate change set the tone for India's position at the upcoming Durban climate talks. She said India and other developing countries had walked the extra mile over the last two years - at Copenhagen and Cancun - as part of confidence building measures but the developed world had done little in return. The effort in the last few years has been aimed at giving the issue of historical emissions a quiet burial and refashioning a regime that is anchored in current emissions rather than cumulative emissions... this is unscientific," she said. "My fervent hope is that better sense will prevail at Durban," she added. The minister was speaking at a briefing for South Asian journalists by Centre for Science and Environment on Thursday.

"There is a consistent attempt to hold Kyoto Protocol hostage to a new legally binding agreement. A long-term binding agreement cannot be a quid pro quo for a second commitment period of Kyoto Protocol," she said. "A new legally binding agreement is not required for talks to continue because the principles of equity and common but differentiated responsibilities already exist in the UN convention and the protocol," she added. Noting that this was one subject that the opposition parties and the UPA were on the same page on India's international climate change policy, she said for India, it was matter of ensuring sustainable livelihoods and not sustainable lifestyles.

The discussions on legal options should only be looked at when the mandate of Bali Action Plan has been met - indicating the committed finance, technology and emission reduction targets of the developed world had to be addressed before India agreed to discussions on a new deal. She reiterated the BASIC agreement that talks for such a deal should begin only once the IPCC review and the review of commitments under the convention had been completed.

"For India, Kyoto Protocol is not an issue of competitive politics. It's a substantial issue of discharging historical responsibility," Natarajan said. Saying that a recession in the west was no excuse for the developed world to recede from its commitments, she said they had to meet up to their pledges on finance. Answering a question on US President Barack Obama's statement that India and China needed to do more and the US had done enough, Natarajan said they needed to put up a mirror to their actions. "They certainly know and understand what we are saying, they hear but they choose not to listen. US says it can't give commitments because it has to pass it through the senate but other countries too have their parliaments and constituencies but if the world has to move forward, we need to keep talking with each other."

## PAK BACKS INDIA, HELPS REVIVE EQUITY DEBATE AT CLIMATE MEET 30 November, 2011

The Times of India, New Delhi

New Delhi: Pakistan came out in support of India's demand that equity, intellectual property rights (IPR) and trade barriers be discussed at the climate talks in Durban that started on Monday.

Along with Pakistan, other developing countries staved off an attempt to take the Indian proposal off the table on the opening day of the talks, despite the US' opposition to inclusion of IPR and trade barriers.

Fireworks began in Durban even before the formal talks started. On Sunday evening, in informal confabulations and under pressure from developed countries, it was first proposed that the Indian demands would be put aside, while the rest of the agenda is proposed and accepted by the countries. Had that happened, there would have been no chance for the three issues raised by India to figure during the two-week negotiations. They would have been dumped even before countries could present their views formally on the topics.

But, when the talks opened, India successfully ensured that the agenda does not move ahead without resolving how the three critical issues are handled. India's position also got bolstered by the BASIC countries along with other like-minded nations for the first time making a formal intervention, supporting the call to put equity, IPR and trade barriers at the heart of negotiations. BASIC's first such formal intervention indicated a stronger than ever alliance among Brazil, China and India. Earlier, though the BASIC countries worked behind the scene as one unit on some occasions, Monday's move implied a greater symbol of unity among them.

"We emphasize that adequate treatment of issues of equity, trade and IPR is crucial to developing countries and necessary for a comprehensive and balanced outcome at Durban. We underline the importance of these issues," China said on behalf of the BASIC nations.

It was decided that a formal adoption of the agenda (on which the two-week talks will be based) would not be accepted till the Indian concerns are addressed. The US had opposed the inclusion of IPR and trade barriers in the talks since it prefers to hold such discussions only under WTO. Other developed countries too are opposed to India's move, though formally only Singapore protested against New Delhi's proposal.

For developing countries the inclusion of equity, IPR and trade barriers in the negotiations has taken urgency. With the EU and other developed countries pushing for a new global deal even as the Kyoto Protocol is abandoned, it is important from India's point of view that the 'equity' element ensures a burden-sharing formula remains the bedrock for future talks. A formal opposition to trade barriers using carbon emissions as an excuse within the climate talks would also block attempts like the one EU recently made by imposing carbon tax on international flights. Keeping the IPR issue on the table ensures that the onus on rich nations to transfer technologies to poor countries remains intact.

# INDIA TO WORK IN TANDEM WITH BASIC GROUP AT DURBAN TALKS

Subodh Ghildiyal and Nitin Sethi , TNN 30, November, 2011

http://timesofindia.indiatimes.com/home/environment/developmental-issues/India-to-work-in-tandem-with-BASIC-group-at-Durban-talks/articleshow/10936497.cms

New Delhi: India will work closely with BASIC group and other like-minded countries at Durban climate talks to ensure that its three agenda issues - equity, intellectual property on green technologies and unilateral trade barriers - become central to the UN climate negotiations after having fallen off the talks table at the Cancun meet last year. The government wants the negotiating team, headed by Jayanthi Natarajan, to hinge India's stance with the BASIC group in case of a split in the larger developing world bloc, G77+China. Else, Natarajan is to partner closely with the 137 country grouping.

The BASIC group comprises four emerging economies - Brazil, India, South Africa and China. In a first in their recent partnership, the four formally placed their demands before the global community at the ongoing climate talks.

India will push for an unconditional acceptance of the second phase of Kyoto Protocol by rich countries, which the EU has opposed vehemently. It requires the developed world to commit to binding emission reduction targets under the Kyoto Protocol- II after the first phase of the pact expires next year. It will not accept any quid pro quo for rich countries to undertake such targets. The EU has demanded that India and other emerging economies kick start discussions for a new single legal binding treaty before they even politically pledge to the Kyoto Protocol beyond 2012.

The Cabinet is likely to clear India's stance on Thursday, including the non-negotiable elements that remain unchanged, ahead of Natarajan's departure for Durban to head the ministerial round of the two-week talks. If push comes to shove from the developed world, India would agree to do so only after 2015, when the results of a review of the achievements under the UN convention are expected. IPCC, the UN climate science panel, is also expected to present its fifth comprehensive report at that time.

There has been no change in New Delhi's stance since Cancun. India had decided that the country would not undertake any legally binding targets at this stage of its development. Even under the review slated for 2015, India will not accept the proposal of some countries to rework the existing UN compact. It will insist that a fair burden-sharing formula among countries be built into any decision on capping global emissions. It seeks to incorporate past emissions, which are higher for rich nations, to become the yardstick for such a formula.

The principle of equity ensures that any new deal is fair to developing world. India wants the IPR regime to be tweaked to ensure costly green technologies are provided to poor countries sans the exorbitant proprietary price tag. It also wants to ensure that the EU moves like unilateral imposition of carbon tax on aviation is blocked in future.

## ICFRE H.Q. NEWS ON BIODIVERSITY AND CLIMATE CHANGE

## THREE DAYS TRAINING COURSE ON CDM VALIDATION AND VERIFICATION WAS ORGANIZED BY M/S TUV SUD SOUTH ASIA PVT. LTD, NEW DELHI AT ICFRE DEHRADUN FROM 3 TO 5 JULY 2011.

Three days training programme on CDM validation and verification was organized by the Biodiversity and Climate Change Division at ICFRE, Dehradun from 3 to 5 July, 2011 with the help of M/S TUV SUD SOUTH ASIA PVT Ltd New Delhi. 20 participants including DG, ICFRE attended and successfully completed the training course.



## ONE WEEK COMPULSORY TRAINING COURSE FOR IFS OFFICERS ON "FOREST AND CLIMATE CHANGE: OPPORTUNITIES AND CHALLENGES OF MITIGATION AND ADAPTATION" FROM 17 TO 21 OCTOBER 2011 AT ICFRE, DEHRADUN

One week compulsory training course for Indian Forest Service officers on "Forest and Climate Change: Opportunities and Challenges of Mitigation and Adaptation" was organized by the Biodiversity and Climate Change Division at ICFRE Dehradun from 17 to 21 October 2011. 33 IFS officers of different states participated in this course, sponsored by the Ministry of Environment and Forests, Government of India, New Delhi. The programme was highly appreciated and rated by the participants.



## ONE WEEK DST TRAINING FOR SCIENTISTS AND TECHNOLOGISTS ON "CLIMATE CHANGE AND CARBON MITIGATION" FROM 14 TO 18 NOVEMBER 2011 AT ICFRE DEHRADUN

One week training programme for scientists and technologist on "Climate Change and Carbon Mitigation' was organized by the Biodiversity and Climate Change Division at ICFRE, Dehradun from 14 to 18 November 2011. 24 scientist and technologist participated in this course. The training programme was sponsored by the Department of Science and Technology, Government of India New Delhi. The programme was highly appreciated by the participants.





## CBD EXPERT GROUP MEETING ON 'BIODIVERSITY FOR POVERTY ERADICTION AND DEVELOPMENT" AT ICFRE AUDITORIUM ICFRE, DEHRADUN FROM 12-15 DECEMBER 2011

In ICFRE, a four day United Nations Convention on Biological Diversity (CBD) meeting was organized from 12 to 15 December 2011.

While welcoming the participants during the inaugural session on 12 December 2011, Dr.V.K. Bahuguna, Director General, ICFRE in his introductory remarks stated that effective conservation of biodiversity was essential for human survival and the maintenance of ecosystem processes. He called upon the participants to encourage development outlooks and practices that conserve and sustainably use biodiversity.

Dr. R.B.S. Rawat, PCCF of Uttarakhand State Forest Department, the Chief Guest of the inaugural function, emphasised that the biodiversity and poverty eradication were intrinsically linked, and demand integrated efforts in development processes.

Mr. Hem Pande, Joint Secretary, Ministry of Environment and Forests, Government of India briefed about the commitments of the Government of India to include biodiversity as an integral part of the growth process, since that was the only path whereby our country could sustain high economic growth.

Mr. Ravi Sharma, Principal Officer and representative of the CBD Secretariat stated that the CBD was committed to develop more active strategies for biodiversity conservation integrating the aspects of poverty eradication and different developmental activities with emphasis on livelihood needs.

The Coordinator of the Meeting Dr Renu Singh, Head, Biodiversity and Climate Change Division, ICFRE briefed that the meeting was one of the important intercessional meetings,

the outcomes of which would feed into the eleventh Conference of the Parties (CoP-11) to the CBD which would be hosted in Hyderabad by India in October 2012. The Expert Group was mandated to undertake an analysis of the existing mechanisms, processes or initiatives for mainstreaming biodiversity and ecosystem services into poverty eradication and development. The Expert Group was expected to explore biodiversity contribution to poverty alleviation and vice versa in the context of development processes.

The CBD Expert Group Meeting was attended by Expert Group of 17 CBD Country Parties; 2 representatives from United Nations and Specialized Agencies; 7 Inter Governmental Organizations; 9 Non Governmental Organizations; and 3 representatives from Indigenous and Community Organizations, Universities and observers.



## PARTICIPATION OF ICFRE IN THE UNFCCC COP 17 AND COP/MOP-7 FROM 28<sup>Th</sup> NOVEMBER TO 9<sup>Th</sup> DECEMBER 2011 AT DURBAN, SOUTH AFRICA.

Shri V.R.S. Rawat, Scientist- E, Biodiversity and Climate Change Division, participated as a member of Indian delegation in the 17th session of the Conference of the Parties (COP) to the United Nations Framework Convention on Climate Change (UNFCCC) and the session of the Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol (COP/MOP) 7 held from 28<sup>th</sup> November to 9<sup>th</sup> December 2011 Durban, South Africa.

## **UPCOMING EVENTS**

## CLIMATE CHANGE MITIGATION WITH INDIGENOUS PEOPLES: PRACTICES, LESSONS LEARNED AND PROSPECTS

26 to 28 March, 2012 Cairns (Queensland), Australia

This workshop is organized by the UN University (UNU), in collaboration with the Intergovernmental Panel on Climate Change (IPCC), the Australian Government Department of Climate Change and Energy Efficiency, the Secretariat of the Convention on Biological Diversity (CBD), and the UN Development Programme (UNDP). The workshop aims to: reflect the range of perspectives concerning indigenous peoples/local communities and climate change responses (including mitigation); support the build-up of understanding and peer-reviewed literature in the field of indigenous peoples, local communities and climate change mitigation; compile data and grey literature that are relevant for understanding climate change mitigation involving local and indigenous knowledge holders, local populations, and developing country scientists; support Indigenous peoples', local communities and climate dialogues; provide policy makers with relevant information on the mitigation potential of indigenous peoples and local communities; and outline a publication in a Special Issue of a peer-reviewed scientific journal.

Contact: Ameyali Ramos Castillo Research Fellow UNU-IAS Traditional Knowledge Initiative phone: +81-45-2212318 fax: +81-45-2212302 e-mail: ramos@ias.unu.edu www: http://www.unutki.org/news.php?news\_id=123&doc\_id=6

## CLIMATE ADAPTATION FUTURES: SECOND INTERNATIONAL CLIMATE CHANGE ADAPTATION CONFERENCE 2012

29 to 31 May, 2012 Tucson (Arizona), United States of America

Co-hosted and convened by the University of Arizona (US) and the Programme of Research on Climate Change Vulnerability, Impacts and Adaptation (PROVIA) of the UN Environment Programme (UNEP), this conference will focus on adaptation to climate variability and change. The conference intends to bring together researchers, policy makers, and practitioners from developed and developing countries to share insights into the challenges and opportunities that adaptation presents.

Contact: University of Arizona Institute of the Environment phone: +1-520-626-4345 e-mail:adaptation2012@email.arizona.edu http://www.adaptation.arizona.edu/adaptation2012

## **UNFCCC SUBSIDIARY BODIES MAY 2012**

14 to 25 May, 2012 http://www.unfccc.int The venue for these meetings of the UNFCCC Subsidiary Bodies is likely to be Bonn, Germany.

location: TBA contact: UNFCCC Secretariat phone: 49-228-815-1000 fax: 49-228-815-1999 e-mail: secretariat@unfccc.int

## CLIMATE ADAPTATION FUTURES: SECOND INTERNATIONAL CLIMATE CHANGE ADAPTATION CONFERENCE 2012

29 to 31 May 2012 http://www.adaptation.arizona.edu/adaptation2012

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Location: Tucson (Arizona), United States of America contact: University of Arizona Institute of the Environment phone: +1-520-626-4345

e-mail: adaptation2012@email.arizona.edu

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