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**For immediate release**

## **Scientists call for push to save world's carbon-rich peatlands**

**BOGOR, Indonesia (Nov. 24, 2010)** \_ Massive amounts of carbon are being released into the atmosphere as swathes of forests growing on peat swamps in Southeast Asia are being converted to palm oil plantations, new analysis has shown, prompting scientists to call for a special focus on them in the upcoming climate talks.

Peatlands cover about 3% of the earth's land area, but store as much as one-third of all soil carbon. If that carbon is emitted into the atmosphere, it would be equal to about 75 years of burning fossil fuels at the current global rate.

More than 100,000 hectares of peatlands in Southeast Asia are being converted every year into plantations for palm oil and pulpwood.

In a peer-reviewed article published this month in [the journal PNAS](#), scientists with the [Center for International Forestry Research](#) (CIFOR), Daniel Murdiyarso, Kristell Hergoualc'h and Louis Verchot, called for a special focus on peatlands in any future deal on REDD+, a global mechanism for reducing greenhouse gas emissions from deforestation and forest degradation, as well as the conservation and sustainable management of forests, and the enhancement of forest carbon stocks.

"There needs to be urgent action to halt the current tremendous rate of destruction of forested peatlands" Murdiyarso said. "We know that peatlands contain more carbon belowground than that stored aboveground, but how much is released as emissions depends on many biophysical factors and management practices."

Greenhouse gas accounting guidelines provided by the Intergovernmental Panel on Climate Change (IPCC) do not make specific mention of peat. They refer more broadly to wetlands, which also include rice paddies, swamps, natural rivers and lake systems \_ which contain far less carbon.

"Until now we have known very little about emission factors for greenhouse gas accounting for tropical peatlands; Much less than for other ecosystems," Hergoualc'h said. "But we now have a better idea about these factors for

tropical peatlands. We calculated peat carbon loss from a change in land use by measuring how a switch in vegetation altered the main carbon inputs to and outputs from the peat.”

Peatlands are usually found in marshy areas where the waterlogged conditions restrict oxygen diffusion into the soil, slowing down the decomposition of dead organic matter, such as plants and trees. Although peat soils tend to be nutrient-poor and thus only suitable for certain types of agriculture, these ecosystems are, at least in the tropics, important for biodiversity, providing homes for thousands of species, including many endemic, rare and endangered plants and animals. Peatlands are heavily used by the communities that inhabit them, particularly for timber and fuel.

In Indonesia, which is home to one of the world’s largest areas of peatland globally, protection of these carbon “sinks” was put at further risk by a 2009 national regulation that permits the development of oil-palm plantations in peatlands with peat depth less than 3 meters. This comes despite a report the same year by the government revealing that almost half of the country’s emissions come from the destruction and degradation of peatland. Indonesia is the third largest emitter of greenhouse gases in the world.

One of the big challenges for using REDD+ to curb the rate of peatland destruction is to find a way to adequately compensate people to not grow palm oil on peatland.

A hectare of palm oil in Indonesia nets a land owner between \$4,000 and \$10,000. This is more profitable than leaving the forest and peat undisturbed and earning carbon credits from the voluntary markets, which at present rates would yield \$500 to \$1000.

Growing demand for crude palm oil from China, India and Europe, which mainly use it for cooking oil, may make the industry even more profitable.

“Unless future global climate policies create significant financial incentives to overcome the economic drivers of deforestation, REDD+ will not be able to compete financially,” said Verchot.

It is estimated that total carbon loss from converting peat swamp forests into oil palm is about  $60 \pm 10$  tons of carbon dioxide per hectare per year, during the first 25 years after land-use cover change. More than half of that comes from the peat itself. About a quarter of the total amount of emissions is released during the first year when fire is used to clear the land. This total figure is more than double the carbon loss from converting forests on mineral soil into oil palm plantations.

While it has long been believed that peatlands are critical areas for storing carbon—and that their loss results in a disproportionate release of greenhouse gas into the atmosphere, little effort has been made to understand or quantify the levels of carbon storage offered by these ecosystems. CIFOR and partners are currently carrying out studies to monitor and measure carbon pools and fluxes in peatlands throughout Indonesia with the hope that such information could provide a valuable weapon in the battle against climate change.

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To read the article in PNAS titled “Opportunities for reducing greenhouse gas emissions in tropical peatlands,” click [here](#).

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**The Center for International Forestry Research (CIFOR)** advances human wellbeing, environmental conservation and equity by conducting research to inform policies and practices that affect forests in developing countries. CIFOR helps ensure that decision-making that affects forests is based on solid science and principles of good governance, and reflects the perspectives of developing countries and forest-dependent people. CIFOR is one of 15 centres within the Consultative Group on International Agricultural Research.

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Journalists who will be in Cancún, Mexico for COP 16 are encouraged to attend the fourth annual **Forest Day on December 5, 2010**. Forest Day is one of the world's leading global platforms for anyone with an interest in forests and climate change to come together with others and exchange their views. Last year, nearly 1,500 people attended the event in Copenhagen, including world leaders, three Nobel Prize winners, top scientists, donors, policymakers, leaders of indigenous communities, 250 climate negotiators and more than 100 journalists. This year, we anticipate up to 2,000 participants. For further information and registration, go to [www.forestday.org](http://www.forestday.org)