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Change Institute
UNIVERSITY OF OXFORD



Tyndall^oCentre
for Climate Change Research

Environmental Change Institute, Met Office and Tyndall Centre Press Release

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Will climate change kill the Amazon asks University of Oxford conference

One of the most profound predicted impacts of climate change into the 21st Century is being discussed next week at Oxford University's Oriel College by an unprecedented gathering of scientists, conservationists and policymakers. The three day conference starting 20th March explores why dieback from drought might happen; the likelihood and length of time for significant dieback of the Amazon; and what it means for local people and biodiversity; and the implications for the global climate.

An early wake-up call on the potential die-back of the Amazon rainforest due to a drying climate emerged from the Met Office Hadley Centre climate model five years ago. The issue of Amazonian dieback then leapt from scientists' computer predictions to global environmental concern with the unexpected Amazonian drought of 2005. Was it a climate change "tipping point", a harbinger of things to come?

The Amazon is critical to global climate because it helps regulate the amount of carbon dioxide in the global atmosphere by locking away vast quantities of carbon into rainforest trees. It is also an "engine" of the global atmospheric circulation that affects rainfall patterns in places as far away as Europe and Central Asia. Through the recycling of rainwater back into the atmosphere, the rainforests also influence their own unique regional climate, which provides a home to a quarter of the world's biodiversity and many indigenous peoples.

Several papers in the conference will examine the 2005 drought in detail.

Yadvinder Malhi, one of the conference organisers from Oxford University said "The 2005 Amazon drought took much of the scientific community by surprise, but also provided a window of opportunity to understand how climate change may drive drought, and how humans and ecosystems respond to such drought stress. We need to learn from this quickly, to plan a future for an Amazonian where such droughts may become commonplace".

With speakers and participants from both the Americas and Europe, several new pieces of research will be launched at the conference:

- Peter Cox from the University of Exeter will evaluate if the causes of the widespread 2005 Amazonian drought can be explained by manmade global warming;



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- Chris Huntingford from the Centre for Ecology and Hydrology will use multiple computer simulations to attempt to quantify the likelihood of Amazon dieback;
- Luiz Aragão from the University of Oxford will show that 2005 drought caused extensive leakage of fires from farming areas into the newly flammable forest, burning an area five times greater than deforested areas;
- Dan Nepstad from Woods Hole Research Centre in the US will explore how deforestation and development plans will interact with climate change to exacerbate regional climate change.
- Richard Betts from the Met Office Hadley Centre and co-organiser of the conference, will quantify the impact of Amazon dieback on future regional global climate;
- Kevin Conrad from the Coalition for Rainforest Nations will explore how to reduce deforestation rates to protect Amazonia from climate change

Deforestation by humans has been relatively well studied, but this is the first time that Amazonian dieback has been analysed in detail by the international scientific community

-Notes-

To speak with Dr Yadvinder Malhi Mob 07793228922 Office 01865 285188. Email ymalhi@ouce.ox.ac.uk

Journalists are welcome to attend part or all of the conference. Please contact Jane Applegarth if you are a journalist and would like to attend ph: 01865 275848.

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The full three day conference programme is at www.eci.ox.ac.uk/news/events/070320amazonconference.php

For further information about the work of Oxford University's Environmental Change Institute contact Ian Curtis ph: 01865 275849 ian.curtis@ouce.ox.ac.uk
For further information on climate change and the work of the Met Office Hadley Centre, contact the Met Office Press Office on 01392 886655 or pressoffice@metoffice.gov.uk

The conference is hosted by the Environmental Change Institute at the University of Oxford, with sponsorship from Oxford's James Martin 21st Century School, Centre for Brazilian Studies and Oriel College. Also sponsoring is the UK's Tyndall Centre for Climate Change Research and the Met Office Hadley Centre in Exeter.