# Critical Ethical Issues in the Debate on Climate Change: the "Amazongate" case

Carlos A Nobre

National Institute for Space Research-INPE Brazil

#### I BRISPE - National Meeting on Research Integrity, Science and Publication Ethics

São José dos Campos, Brazil 16 December 16 2010

## Integrity: the quality of being honest

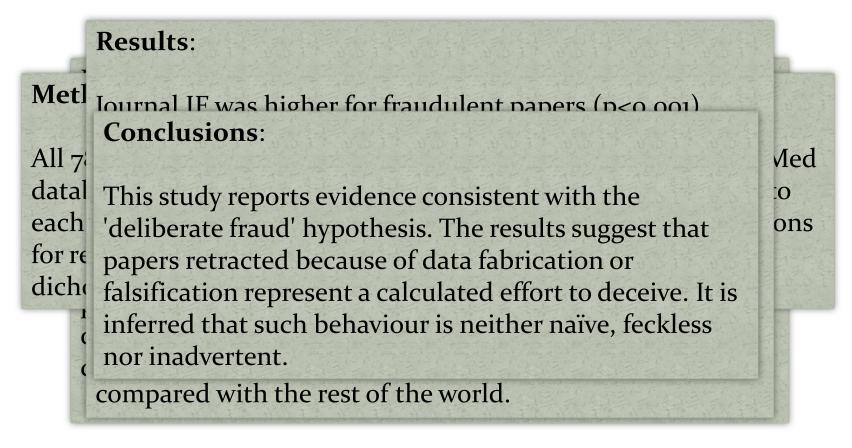
Research integrity

Fabrication, falsification, plagiarism

Integrity in Journalism reporting on research results

# Retractions in the Scientific Literature: do authors deliberately commit research fraud?

G. Steen, J Med Ethics, 2010



### Ásia já responde por um terço dos erros graves na ciência

Estudo mostra padrões de fraude em artigo científico; Brasil é 20º do ranking mundial

#### REINALDO JOSÉ LOPES EDITOR DE CIÊNCIA

Talvez seja um tanto maldoso colocar a coisa nestes termos, mas há sinais de que o fenômeno Xing Ling também invadiu o mundo das publicações científicas.

Isso porque, de acordo com um novo levantamento, cerca de um terço dos artigos científicos que passaram por retratações —ou seja, foram "despublicados" por erros graves ou mesmo fraudes—vieram da Ásia, com destaque para países como China, Coreia do Sul e Índia.

A pesquisa, publicada no periódico "Journal of Medical Ethics", é um levantamento do neurofisiólogo americano Grant Steen, da empresa Medical Communications Consultants.

Ele vasculhou uma das principais bases de dados de artigos científicos na internet, o PubMed, que abriga publicações na área biomédica, em busca de todas as pesquisas "retratadas" entre 2000 e 2010 —um total de 788 estudos, escritos em inglês, mas oriundos de todas as

As principais noções do Extremo Oriente, somadas, chegam perto de empatar com os EUA em termos de artigos "despublicados": 237 contra 260. (Em números absolutos, porém, os EUA têm cerca de cinco vezes mais estudos no PubMed.)

"Não examinei diretamente essa questão de taxa de publicação versus taxa de retratação, mas creio que há uma correlação, embora ela possa ser bastante fraca", disse Steen à **Folha**. Segundo ele, o Brasil se sai relativamente bem no ranking, com só cinco artigos "retratados" no período—nenhum por fraude.

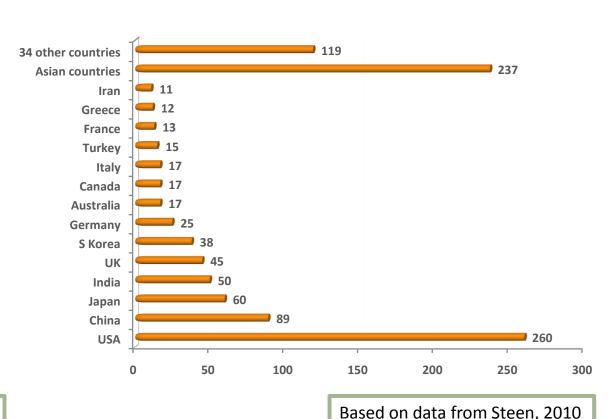
A pesquisa mostrou outros padrões interessantes envolvendo fraudes científicas. Estudos fraudulentos miram, em geral, revistas científicas de alto impacto em seu meio, o que acaba sendo natural: riscos altos, retornos idem.

E as distorções não costumam ser isoladas. Quem adultera um estudo em geral fazisso com vários.

Folha de São Paulo, 5 dez 2010

# ACCORDING TO THE AUTHOR BRAZIL WENT RELATIVELY WELL AT THE RANKING: ONLY 5 ARTICLES "RETRACTED" FROM 2000 TO 2010

#### BRAZIL IS THE 20<sup>TH</sup> COUNTRY AT THE GLOBAL RANK



## "Ethics of Responsibility" and Principles

"In depth, its not different from what Max Weber said in the famous lecture on *Politics as a Vocation*, in which he start s to describe the difference between the ethics of responsibility and the ethics of ultimate ends. In fact, many times, the politicians, in order to be responsible, has to be silent. They should not lie, but maybe they may not speak, because if they do, this will lead to a third party will act, and at the end, it may not allow what they desire – which is aligned with their conscience, with their values and maybe with the good –may find obstacles.

The conducts are different. The scientist proclaims the truth immediately. The politician needs to be conscious of the consequences of their actions. And the consequences of their actions and the actions provoked by what he said or did not say, because he is responsible for the actions of the third parties as well. He ends up having to assume the responsibility which is not morally chargeable, but politically he is responsible, even though he has not participate or wished that happened. But, if he, many times, proclaims what he wants before the time to do it, he does not reach an end."

Fernando Henrique Cardoso, 1995.

ETHICS OF PRINCIPLES OR CONVICTIONS: ABSOLUTE, NOT NEGOTIABLE - SCIENTIST

X

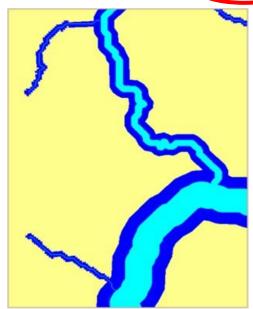
**ETHICS OF RESPONSIBILITY**: MUST TAKE INTO ACCOUNT THE CONSEQUENCES OF THE ACTION S -POLITICIANS.

# APP ripariana CF proposto, corpo d'água máximo

	Classe	Área (m2)	Área (km2)	%
Geral	Limite Municipal SJC	1,099,996,296.13	1100.00	100.00%
Método	Corpo Dagua ordem1-2	0.00	0.00	0.00%
	Corpo Dagua ordem3	0.00	0.00	0.00%
	Corpo Dagua ordem4-5	5453659.60	5.45	0.50%
	Corpo Dagua ordem6-7	12193008.27	12.19	1.11%
	APP_ordem1-2(buffer 15m)	37648575.00	37.65	3.42%
	APP_ordem3(buffer 30m)	10712700.00	10.71	0.97%
	APP_ordem4-5(buffer 50m)	10807279.68	10.81	0.98%
	APP_ordem6-7(buffer 100m)	11666979.03	11.67	1.06%
Final	APP Ripária	68603685.11	68.60	6.24%
	APP Ripária reduzida em 50%	34301842.56	34.30	3.12%

São José dos Campos/SP

> A case of Research Misconduct: falsification Calculation of Riparian Areas in the Forest Act



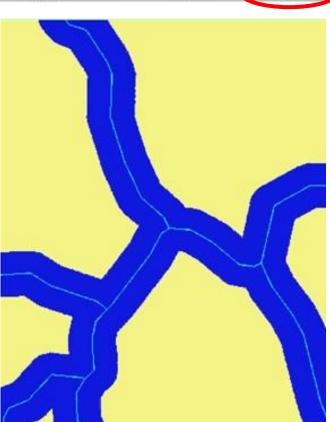
# APP ripariana Buffer de 500 m, ge buffer to Drenagem da ANA

Embrapa researcher used a large buffer to Increase the area of protected riparian vegetation

	Classe	Área (m2)	Área (km2)	%
Geral Método	Limite Municipal SJC	1,099,996,296.13	1100.00	100.00%
	Corpo d'água ANA	0.00	0.00	0.00%
	APP_Todas Ordens (buffer 500m)	238124400.00	238.12	21.68%
Final	APP Ripária	238124400.00	238.12	21.68%

São José dos Campos/SP





# Background on IPCC AR4 2007 x the media



# 'Amazongate'

# The sentence which started the troube...

### IPCC AR4 2007 Chapter 13 Latin America\*

Up to 40% of the Amazonian forests could react drastically to even a slight reduction in **precipitation**; this means that the tropical vegetation, hydrology and climate system in South America could change very rapidly to another steady state, not necessarily producing gradual changes between the current and the future situation (Rowell and Moore, 2000). It is more probable that **forests will be replaced by ecosystems** that have more resistance to multiple stresses caused by temperature increase, droughts and fires, such as tropical savannas.

\*Magrin, G., C. Gay García, D. Cruz Choque, J.C. Giménez, A.R. Moreno, G.J. Nagy, C. Nobre and A. Villamizar, 2007.

that the region has experienced during the last 20 years, efore can be outradictory. On the one hand, economists our liberalisation of Latin American economies argue ntries that have imple uented these types of policies have d in terms of growth rate, stability, democracy and even gard to inequality and poverty (for example: Walton, Yorld Bank, 2006). On the other hand, another group of in economics, sociology and politics is concerned with cets that neoliberalisation has had for the region, ly in terms of increases in inequality and poverty, but terms of lack of economic growth (Huber and Yolt, This is still an unresolved debate that imparts greanty to economic scenarios for Latin America.

first group's view provides the following insights for ic prospects. Analysts from the World Bank argue that e real per capita GDP of Latin America has had a very wth – about 1.3%/yr average during the 1990 to 2000 in the long term (from 2006 to 2015), regional GDP is d to increase by 3.6%/yr, and per capita income is d to rise by 2.3%/yr on average (World Bank, 2006). estimates forecast a growth of 4%/yr for the region in d 3.6%/yr in 2007 and real per capita GDP growth of and 2.3%/yr, respectively (Loser, 2006; World Bank, These positive prospects are attributed to the entation of economic policies such as a substantial of the fiscal imbalances and inflation control that have a dgrowth in the past. According to this source, the area tack to meet its Millennium Development Gads on

however, it is imporance is not as good as o Asia and, notably, China could be achieved by o (Walton, 2004; World I second group of exper ation, far from establish have weakened the reg th and making it mor ty and poverty, and lir rowth (Huber and Solt, f economic growth, ork and demographic portant factors for her nerability to clip ate 2002).

.4 Sur⁄mary of ex impacts and νι

Natural ecosystems

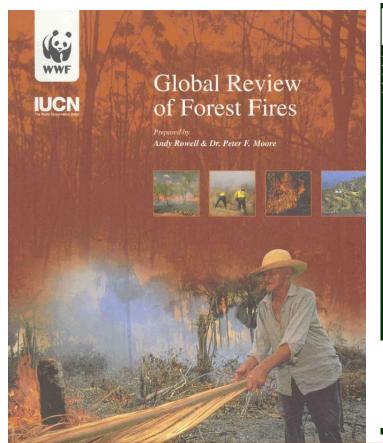
Tropical plant species may be climate, since biological syster rapid changes of climate. This a species diversity. Based on Hat General Circulation Model (, emissions scenarios, there is the of 138 tree species of the central Brazil savannas (Cerrados) by 2050 for a projected increase of 2°C in surface temperature (Siqueira and Peterson, 2003; Thomas et al., 2004). By the end of the century, 43% of 69 tree plant species studied could become extinct in Amazonia (Miles et al., 2004). In terms of species and biome redistributions, larger impacts would occur over north-east Amazonia than over western Amazonia. Several AOGCM scenarios indicate a tendency towards 'savannisation' of eastern Amazonia (Nobre et al., 2005) and the tropical forests of central and south Mexico (Peterson et al., 2002; Arriaga and Gómez, 2004). In north-east Brazil the semi-arid vegetation would be replaced by the vegetation of arid regions (Nobre et al., 2005), as

Up to 40% of the Amazonian forests could react drastically to even a slight reduction in precipitation; this means that the tropical vegetation, hydrology and climate system in South America could change very rapidly to another steady state, not necessarily producing gradual changes between the current and the future situation (Rowell and Moore, 2000). It is more probable that forests will be replaced by ecosystems that have more resistance to multiple stresses caused by temperature increase, droughts and fires, such as tropical savannas.

processes (Scholze et al., 2005) considers the distribution of outcomes within three sets of model runs grouped according to the amount of global warming they simulate: <2°C, 2-3°C and >3°C. A high risk of forest loss is shown for Central America and Amazonia, more frequent wildfire in Amazonia more profit



### How it all started: WWF Report 2000





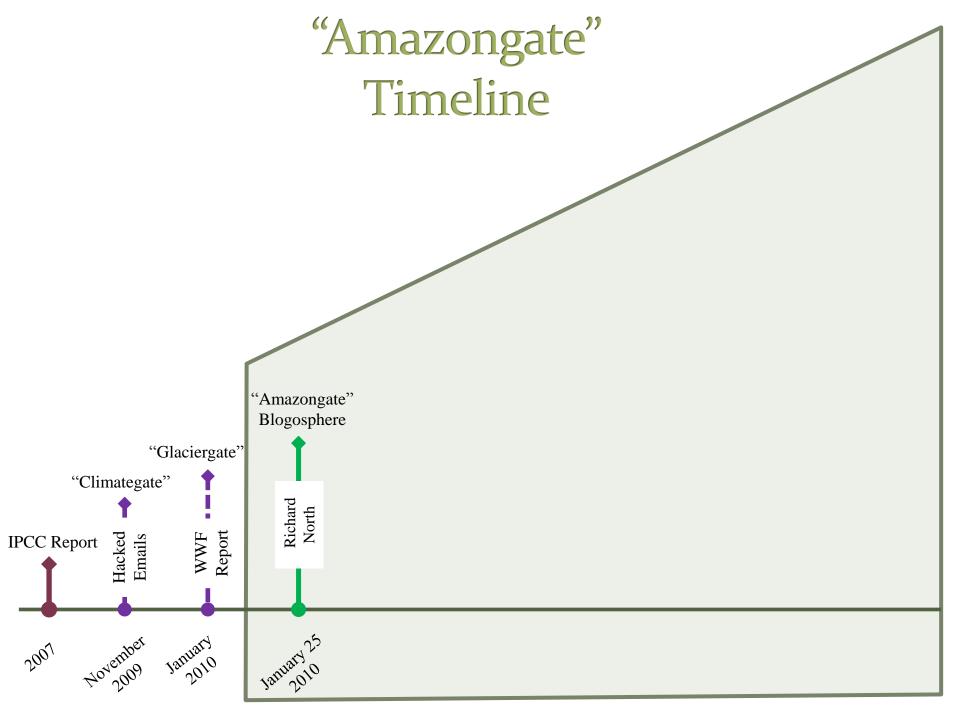
Amazon are sensitive to Large-scale impoverishment nount of rainfall. With ar of Amazonian forests by logging and fire

Instituto de Pesquisa Ambiental da Amazônia (IPAM), 1999

Nepstad et al. 1999 Nature

Up to 40% of the Brazilian forest is extremely sensitive to small reductions in the amount of rainfall. In the 1998 dry season, some 270,000 sq. km of forest became vulnerable to fire, due to completely depleted plant-available water stored in the upper five metres of soil. A further 360,000 sq. km of forest had only 250 mm of plant available soil water left (Nepstad at al. 1999). → 630,000 km² affected or ≈ 15% (Global Review of Forest Fires by Andy Rowell and Dr. Peter F. Moore)

**Peter Moore** is a Forest Fire Management Specialist and **Andy Rowell** is a writer and Investigative journalists on environmental issues.



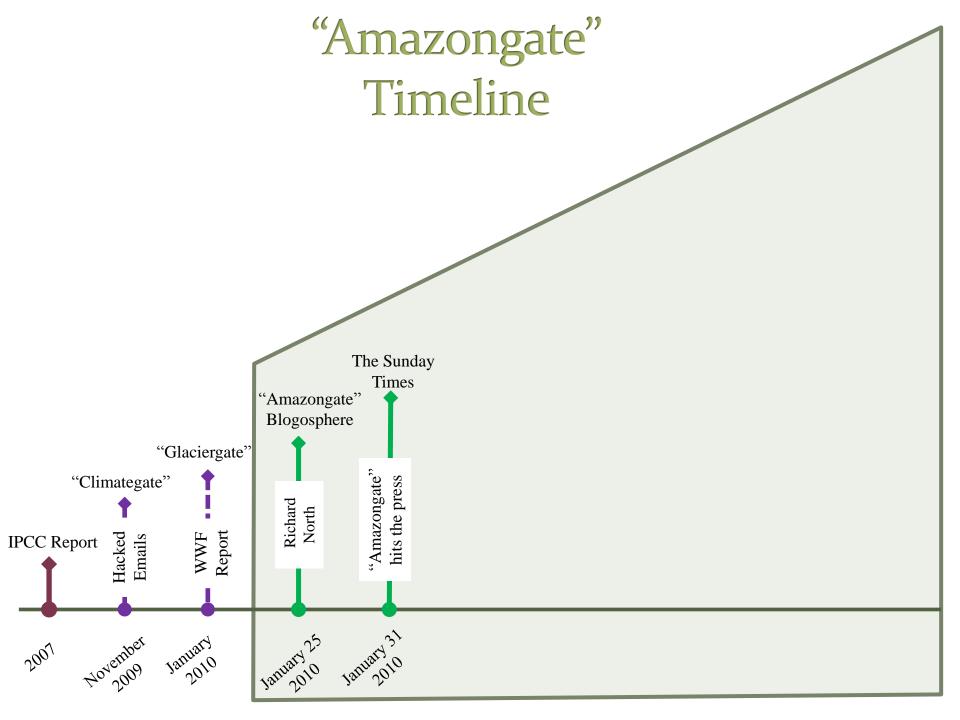
### "Amazongate" Blogosphere: Richard North

#### January 25, 2010

"The IPCC also made false predictions on the Amazon rain forests, referenced to a non peer-reviewed paper produced by an advocacy group working with the WWF. This time though, the claim made is not even supported by the report and seems to be a complete fabrication".

"Thus, following on from "Glaciergate", where the IPCC grossly exaggerated the effects of global warming on Himalayan glaciers – backed by a reference to a WWF report - we now have "Amazongate", where the IPCC has grossly exaggerated the effects of global warming on the Amazon rain forest."





# UN climate panel shamed by bogus rainforest claim

Jonathan Leake Times Online January 31, 2010

"A STARTLING report by the United Nations climate watchdog that global warming might wipe out 40% of the Amazon rainforest was based on an unsubstantiated claim by green campaigners who had little scientific expertise".

#### UN climate panel shamed by bogus rainforest claim

Jonathan Leake

**TimesOnline** 

January 31, 2010

A STARTLING report by the United Nations climate watchdog that global warming might wipe out 40% of the Amazon rainforest was based on an unsubstantiated claim by green campaigners who had little scientific expertise.

The Intergovernmental Panel on Climate Change (IPCC) said in its 2007 benchmark report that even a slight change in rainfall could see swathes of the rainforest rapidly replaced by savanna grassland.

The source for its claim was a report from WWF, an environmental pressure group, which was authored by two green activists. They had based their "research" on a study published in Nature, the science journal, which did not assess rainfall but in fact looked at the impact on the forest of human activity such as logging and burning. This weekend WWF said it was launching an internal inquiry into the study.

This is the third time in as many weeks that serious doubts have been raised over the IPCC's conclusions on climate change. Two weeks ago, after reports in The

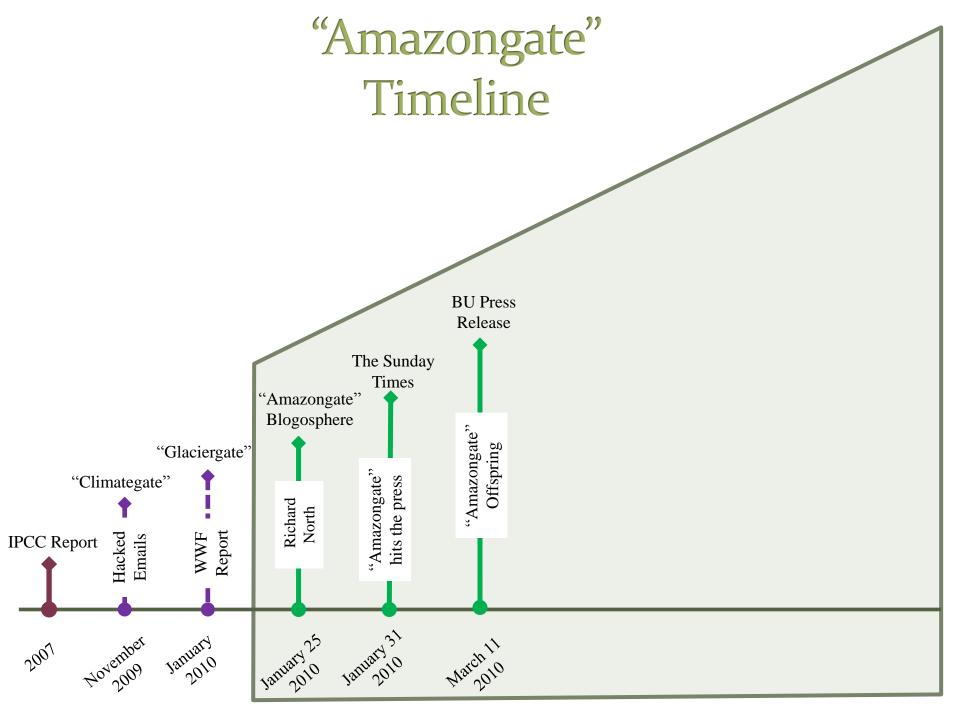
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well over its claims that climate change by of natural disasters such as hurricanes

of the IPCC, was fighting to keep his job

by climate change sceptics to sway ven though the fundamental science, emains strong.



## "Amazongate" offspring Boston University

#### 11-Mar-2010

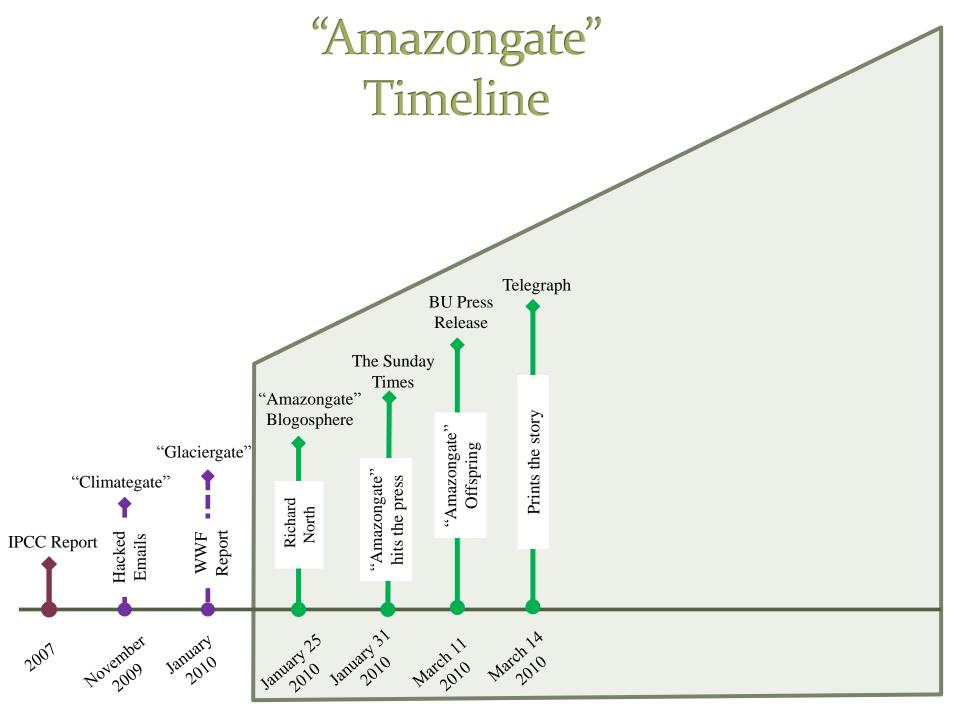
New study debunks myths about Amazon rain forests
They may be more tolerant of droughts than previously thought (Boston)

"The way that the WWF report calculated this 40% was totally wrong, while [the new] calculations are by far more reliable and correct," said Dr. Jose Marengo, a Brazilian National Institute for Space Research climate scientist and member of the IPCC. 11 - Mar -2010 **■** - 617-353-4626 **○** New study debunks myths about Amazon rain forests They may be more tolerant of droughts than previously thought (Boston) -- A new NASA-funded study has concluded that Amazon rain forests were remarkably unaffected in the face of once-in-a-century drought in 2005, neither dying nor thriving, contrary to a previously published report and claims by the Intergovernmental Panel on Climate Change "We found no big differences in the greenness level of these forests between drought and non-drought years, which suggests that these forests may be more tolerant of droughts than we previously thought," said Arindam Samanta, the study's lead author from Boston University The comprehensive study published in the current issue of the scientific journal Geophysical Research Letters used the latest version of the NASA MODIS satellite data to measure the greenness of these vast pristing forests over the past decade A study published in the journal Science in 2007 claimed that these forests actually thrive from drought because of more sunshine under cloud-less skies typical of drought conditions. The new study found that those results were flawed and not reproducible This new study brings some clarity to our muddled understanding of how these forests, with their rich source of biodiversity, would fare in the future in the face of twin pressures from logging and changing climate," said Boston University Prof. Ranga Myneni, senior author of the new study. The IPCC is under scrutiny for various data inaccuracies, including its claim - based on a flawed World Wildlife Fund study -- that up to 40% of the Amazonian forests could react drastically and be replaced by savannas from even a slight reduction in rainfall. "Our results certainly do not indicate such extreme sensitivity to reductions in rainfall," said Sangram Ganguly, an author on the new study, from the Bay Area Environmental Research 'The way that the WWF report calculated this 40% was totally wrong, while [the new] calculations are by far more reliable and correct," said Dr. Jose Marengo, a Brazilian National nstitute for Space Research climate scientist and member of the IPCC

##

Founded in 1839, Boston University is an internationally recognized private research university with more than 30,000 students participating in undergraduate, graduate, and professional programs. BU consists of 17 colleges and schools along with a number of multi-disciplinary centers and institutes which are central to the school's research and teaching mission.

Geophysical Research Letters article citation: Samanta, A., S. Ganguly, H. Hashimoto, S. Devadiag, E. Vermote, Y. Knyazikhin, R. R. Nemani, and R. B. Myneni (2010), Amazon forests did not green-up during the 2005 drought, Geophys. Res. Lett., 37, L05401, doi:10.1029/2009GL042154.



## The Daily Telegraph

Original article\* published on March 14 by Richard Gray: \*original article is no longer available on The Daily Telegraph webpage

Dr Jose Marengo, a climate scientist at the Brazilian National Institute for Space Research and a member of the IPCC, said the study on the Amazon's response to drought highlighted errors in the previous claims.

"The way the WWF report calculated this 40 per cent was totally wrong, while [the new] calculations are by far more reliable and correct," he said.



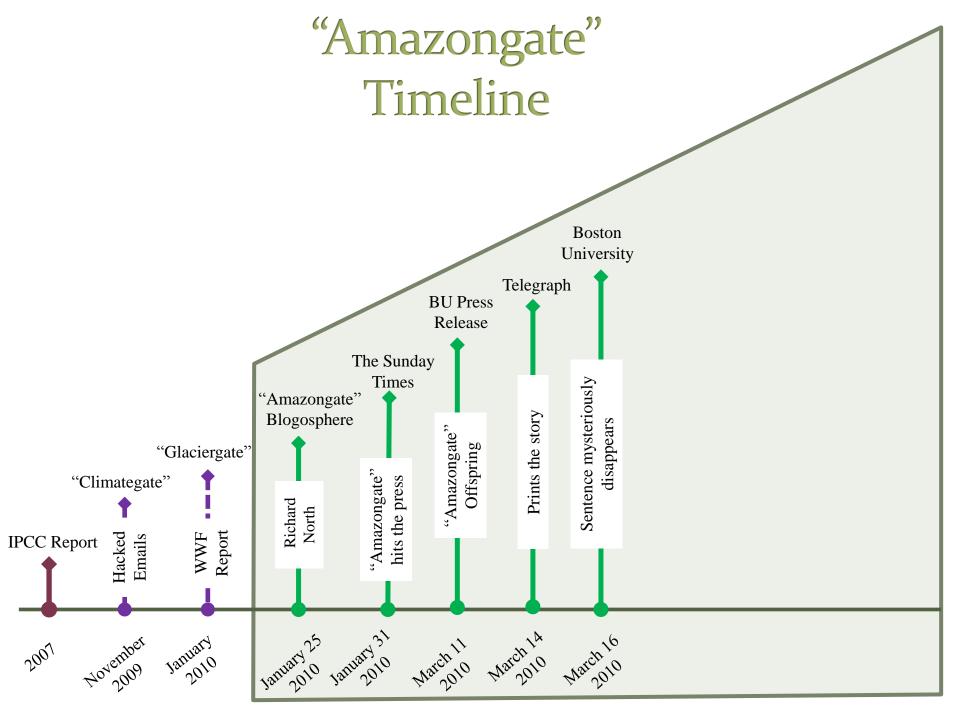
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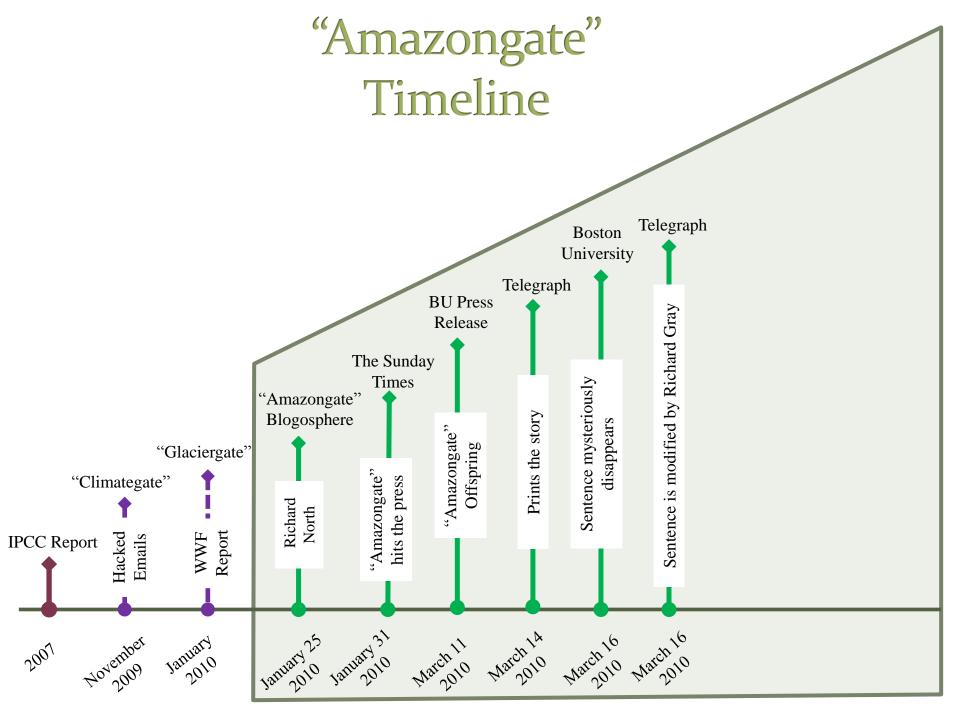
## Statement mysteriously disappears

March 12 By Richard Taffe

The sentence was removed on March 16 after Dr. Marengo complains to **Boston University** that he was completely misquoted.



Founded in 1839, Boston University is an interestionally recognized private research



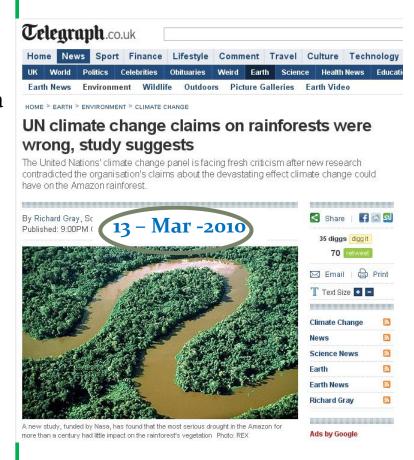
# The Daily Telegraph Sentence is modified on March 16 by Richard Gray:

Sentence was modified on March 16 but date is March 13 on the webpage (remember that the original piece came on March 14):

Dr Jose Marengo, a climate scientist with the Brazilian National Institute for Space Research and a member of the IPCC, said the latest study on the Amazon's response to drought highlighted the variations on the previous claims.

He said: "In 2005, some parts of the Amazon were affected by the drought and others were not. In some regions, dryness was high and the number of fires was high. In other areas, the forest was not affected.

"As part of its standard processes, the IPCC assesses new papers in each assessment cycle. New literature that has appeared since the 2007 report will be reviewed for the next report."

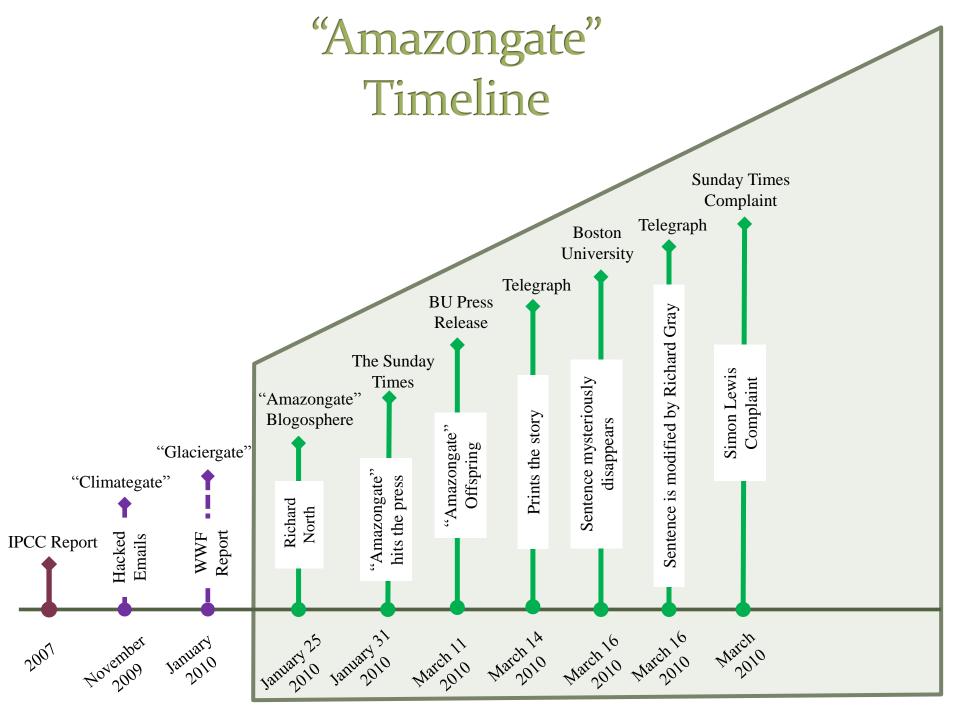


## The Daily Telegraph

But, the incorrect quotation is published again on March 16 by Gerald Warner:

Now Dr Jose Marengo, a climate scientist with the Brazilian National Institute for Space Research and himself a member of the IPCC, says: "The way the WWF report calculated this 40 per cent was totally wrong, while (the new) calculations are by far more reliable and correct." These calculations were done by researchers at Boston University and were published in the scientific journal Geophysical Research Letters. They used satellite data to study the drought of 2005, when rainfall fell to the lowest in living memory, and found that the rainforest suffered no significant effects.





# Official complaint from Simon Lewis to the Sunday Times

Simon Lewis, an expert on tropical forests at the University of Leeds in the UK, says the Sunday Times' "inaccurate, misleading and distorted" story by Jonathan Leake in January left readers under the wrong impression that the 2007 IPCC AR4 report made a false claim by stating that reduced rainfall could wipe out up to 40% of the Amazon rainforest.

Lewis filed a formal complaint this week with the UK Press Complaints Commission. (Guardian.co.uk, March 24)

"Specifically, I consider this article to be materially misleading. I am the scientific expert cited in the article who was asked about the alleged "bogus rainforest claim". In short, there is no "bogus rainforest claim", the claim made by the UN panel was (and is) well-known, mainstream and defensible science, as myself and two other professional world-class rainforest experts (Professor Oliver Phillips and Professor Dan Nepstad) each told Jonathan Leake"

# The apologies from the Sunday Times on The Independent (U.K.) (6 May 2010)



→ SHARE | 
→ PRINT

#### Johann Hari: Deniers - apologise for Climategate

Thursday, 6 May 2010

At last! The controversy is over. Forget the general election for a moment; this is even more important. It turns out the "scientific" claims promoted for decades by whiny self-righteous liberals were a lie, a fraud, a con - and we don't need to

liberals were a lie, a fraud, a con - and we don't need to change after all. The left is humiliated; the conservatives are triumphant and qualitant.

triumphant and exultant.

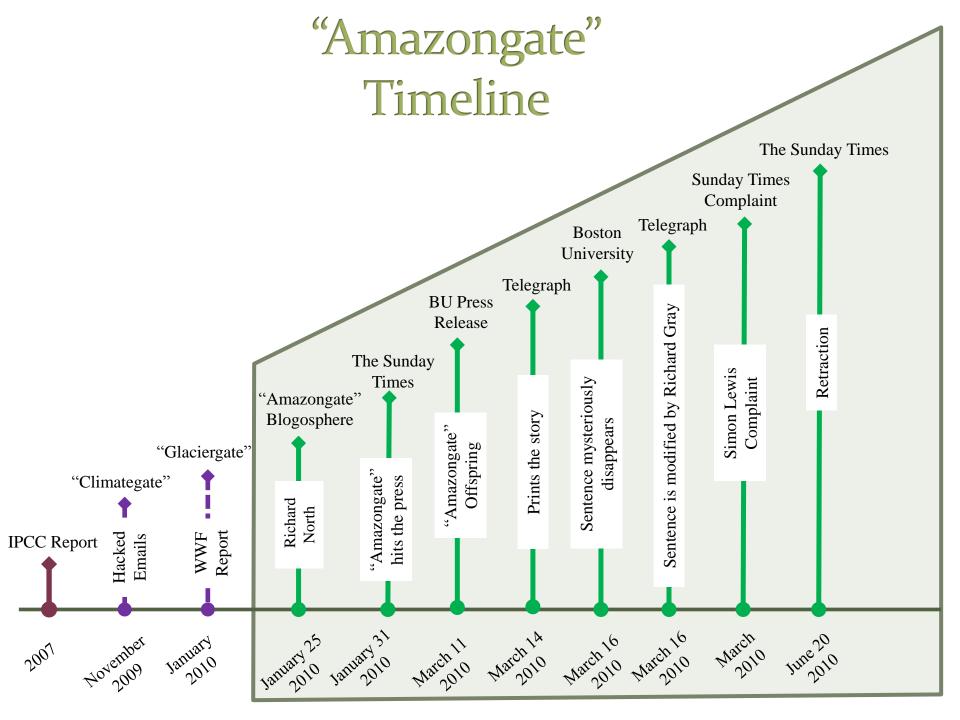
The year is 1954, and the "science" that has been exposed as a "sham" by conservatives is the link between smoking and lung cancer. Welcome to Tobaccogate, as Fox News would call it. The conservatives are championing professor Clarence Cook Little, who says he has discovered insurmountable flaws in the use of statistics and clinical data by "anti-tobacco" (and quasi-commie) scientists. The press reports the "controversy," usually without mentioning that Cook Little is being paid by the tobacco industry. A relieved nation lights up – and so, over the next few decades, millions of them die.

It is happening again. The tide of global warming denial is now rising as fast as global sea levels – and with as much credibility as Cook Little. Look at the deniers' greatest moment, Climategate, hailed by them as "the final nail in the coffin" of "the theory of global warming." Several patient impartial studies have now pored over every e-mail from the Climate Research Unit at the University of East Anglia and interviewed everyone involved. The findings? The House of Commons Select Committee on Science found the "evidence patently fails to support" the idea of a fraud; the scientists have "no case to answer"; and all the analyses "have been repeated and the conclus by other scientists. That's science-speak for "it was a pack of lies.

"In his case to the Press Complaints Commission
Dr Lewis says that the paper ignored the bulk of his
comments and mangled his quotes to make it
sound like he agreed that the IPCC had been
talking rubbish – and ran the "story" under the
headline "UN Climate Panel Shamed by Bogus
Rainforest Claim." The article ended with credit for
"research by Richard North."

The story was then zapped all over the world as "Amazongate", and as a result millions of people are now under the impression that the Amazon is in no danger."

Where are the corrections? Where are the apologies? Britain is now the chief fabricator and



## The Sunday Times Retraction

June 20, 2010

#### The Sunday Times and the IPCC: Correction

The article "UN climate panel shamed by bogus rainforest claim" (News, January 31) stated that the 2007 Intergovernmental Panel on Climate Change (IPCC) report had included an "unsubstantiated claim" that up to 40% of the Amazon rainforest coulé be sensible to future changes in rainsible control of the change of

# Poor to get easier entry into

The article "UN climate panel shamed by bogus rainforest claim" (News, Jan 31) stated that the 2007 Intergovernmental Panel on Climate Change (IPCC) report had included an "unsubstantiated claim" that up to 40% of the Amazon rainforest could be sensitive to future changes in rainfall.

A version of our article that had been checked with Dr Lewis underwent significant late editing and so did not give a fair or accurate account of his views on these points. We apologise for this.

IPCC's use of reports by environmental campaign groups related to the prospect of those reports being biased in their concrusions. We accept that Dr Lewis holds no such view rather, he was concerned that the use of non-peer-reviewed sources risks creating the perception of bias and unnecessary controversy, which is unhelpful in advancing the public's understanding of the science of climate change. A version of our article that had been checked with Dr Lewis underwent signifLabour health secretary] Alan Milburn's report on social

mobility."

Observers believe that Willetts may encourage such schemes to appease the Liberal Democrat left and avert a revolt over any moves.

to raise tuition fees.
Ministers cannot force universities to change their admissions policies, but they can exert strong pressure.
Work on the new plan was begun under the last governent, which pushed universiment, which pushed universiment, which pushed universiment.

from poor schools. They can get offers one to three grades lower than their peers.

Others use statistical "modifiers" to help pupils from schools with poor GCSEs. They include Durham, Cambridge and Oxford's medical school. Oxbridge admissions are examined in detail in the new My Oxbridge Choice service

on the Sunday Times website.

Don reveals best way to get
Oxbridge place, page 13

#### THE SUNDAY TIMES

### The Sunday Times and the IPCC: Correction

The Sunday Times
Published: 20 June 2010

The article "UN climate panel shamed by bogus rainforest claim" (News, Jan 31) stated that the 2007 Intergovernmental Panel on Climate Change (IPCC) report had included an "unsubstantiated claim" that up to 40% of the Amazon rainforest could be sensitive to future changes in rainfall. The IPCC had referenced the claim to a report prepared for WWF by Andrew Rowell and Peter Moore, whom the article described as "green campaigners" with "little scientific expertise." The article also stated that the authors' research had been based on a scientific paper that dealt with the impact of human activity rather than climate change.

In fact, the IPCC's Amazon statement is supported by peer-reviewed scientific evidence. In the case of the WWF report, the figure had, in error, not been referenced, but was based on research by the respected Amazon Environmental Research Institute (IPAM) which did relate to the impact of climate change. We also understand and accept that Mr Rowell is an experienced environmental journalist and that Dr Moore is an expert in forest management, and apologise for any suggestion to the contrary.

The article also quoted criticism of the IPCC's use of the WWF report by Dr Simon Lewis, a Royal Society research fellow at the University of Leeds and leading specialist in tropical forest ecology. We accept that, in his quoted remarks, Dr Lewis was making the general point that both the IPCC and WWF should have cited the appropriate peer-reviewed scientific research literature. As he made clear to us at the time, including by sending us some of the research literature, Dr Lewis does not dispute the scientific basis for both the IPCC and the WWF reports' statements on the potential vulnerability of the Amazon rainforest to droughts caused by climate change.

In addition, the article stated that Dr Lewis' concern at the IPCC's use of reports by environmental campaign groups related to the prospect of those reports being biased in their conclusions. We accept that Dr Lewis holds no such view — rather, he was concerned that the use of non-peer-reviewed sources risks creating the perception of bias and unnecessary controversy, which is unhelpful in advancing the public's understanding of the science of climate change. A version of our article that had been checked with Dr Lewis underwent significant late editing and so did not give a fair or accurate account of his view on these points. We apologise for this.

The original article to which this correction refers has been removed

# Simon Lewis comment on the Sunday Times Retraction June 20, 2010

An insider's view of climate science, politics, and solutions

#### **CLIMATE PROGRESS**

Sunday Times retracts and apologizes for shameful and bogus Amazon story smearing IPCC

Exclusive comments from Prof. Simon Lewis whose official complaint led to this too-rare victory of science over disinformation

June 20, 2010

"I welcome the Sunday Times' apology for failing to accurately report my views and retract the Amazon story. As several experts told them – their story was baseless. What I find shocking about this whole episode is that an article read out [loud] and agreed with me was then switched at the last minute to one that fit with the Times' editorial line that the IPCC contained a number of serious mistakes, but actually ignored the scientific facts."

That is tropical forest researcher Simon Lewis in an email to me this morning after the Sunda Times finally retracted their bogus story and issued this too-rare apology (emphasis added):

The article "UN climate panel shamed by bogus rainforest claim" (News, Jan 31) stated that the 2007 Intergovernmental Panel on Climate Change (IPCC) report had included an "unsubstantiated claim" that up to 40% of the Amazon rainforest could be sensitive to future changes in rainfall. The IPCC had referenced the claim to a report prepared for the World Wildlife Fund (WWF) by Andrew Rowell and Peter Moore, whom the article described as "green campaigners" with "little scientific expertise." The article also stated that the authors' research had been based on a scientific paper that dealt with the impact of human activity rather than climate change.

In fact, the IPCC's Amazon statement is supported by peer-reviewed scientific evidence. In the case of the WWF report, the figure had, in error, not been referenced, but was based on research by the respected Amazon

"I welcome the Sunday Times' apology for failing to accurately report my views and retract the Amazon story. *As several experts told them – their* story was baseless. What I find shocking about this whole episode is that an article read out [loud] and agreed with me was then switched at the last minute to one that fit with the Times' editorial line that the *IPCC* contained a number of serious mistakes, but actually ignored the scientific facts".

# The apologies from the Sunday Times on Science (22 June 2010)



Researchers often grouse about the press—but it's rare for scien a media report and win public apologies. But scientists have rece whom they say is biased, and another fight is ongoing.

FORMER NIH CHIEF ZERHOUNI TO LEAD

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NASA SOLAR SAIL
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OVER MOST RESEARCH

Stem Cell Injunction

The "Dance Your Ph.D.

The loser in the first two cases is science reporter Jonathan Leal story alleging that the Intergovernmental Panel on Climate Chang rainforests and climate change.

Forest expert and Royal Society member Simon Lewis, of the Uthe U.K.'s Press Complaints Commission saying that he was mithe Amazonian rainforest could die back with rising temperature-experts say they told that to Leake before the story ran, but the work. (The issue was more with bad footnotes, and ScienceInsid

Now *The Sunday Times* has retracted most of the article's concluber has decidedly won what some are calling Leakegate.

Left-leaning blog Climate Progress calls the apology a "too-rare v

"Researchers often grouse about the press—but it's rare for scientists to successfully challenge the accuracy of a media report and win public apologies. But scientists have recently won battles against one British reporter whom they say is biased, and another fight is ongoing.

The loser in the first two cases is science reporter Jonathan Leake of *The Sunday Times*. In February he wrote a story alleging that the Intergovernmental Panel on Climate Change (IPCC) had published "bogus" data on the rainforests and climate change."

# Lewis' correction in Sunday Times wins the "media correction of the year"

#### REGRET THE ERROR

Mistakes happen

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#### Crunks 2010: The Year in Media Errors and Corrections

Thanks for being a regular reader. You can check out the <u>award-winning Regret the</u> Error book here.

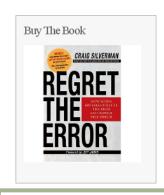
While you're here, please consider <u>purchasing a copy</u> of the Regret the Error book, which won an award for media criticism from the National Press Club, and also contains hundreds of hilarious corrections. You can learn more about the book and read some reviews here. The <u>paperback edition</u> includes a new introduction.

#### Error of the Year: Cooks Source Theft

Unless you're new to the Internet, you probably have an idea of what I'm talking about. As a reminder, here's a recap I wrote for the Toronto Star:

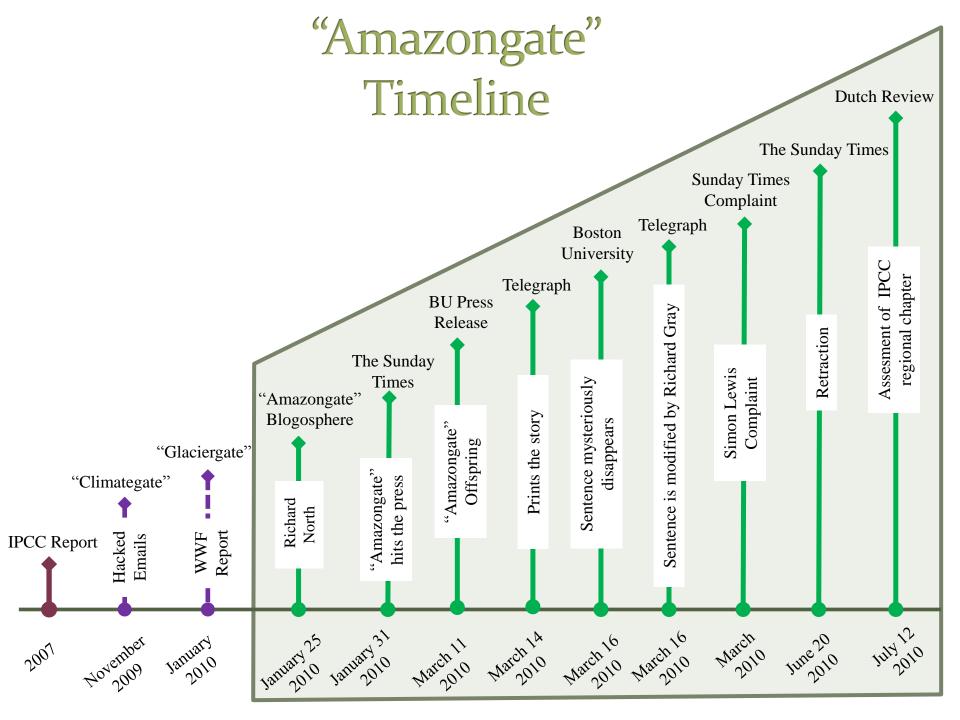
Five years ago, writer Monica Gaudio published an article explaining that the good old American apple pie predated the United States by several hundred years. She even included a couple of delicious olde tyme pie recipes.

Gaudio's was apparently a timeless piece of writing because it was reworked and published under her byline in Cooks Source, a small American culinary magazine. Slight problem: Gaudio had no idea her writing was being reused. She emailed the magazine to express her disappointment, and the ensuing



#### Correction of the Year

2010's correction of the year is the result of a 2009 report by the Sunday Times (U.K.). The story related to a series of leaked emails from climate scientists that caused a huge amount of (mostly inaccurate) outcry, as well as allegations that key climate data had been, to use the parlance, sexed up. The episode was dubbed "Climategate."



### Dutch Review – Assessment to IPCC from the

## Netherlands Environmental Assessment Agency July 20

#### A: IPCC 2007

•Up to 40% of the Amazonian forests could react drastically to even a slight reduction in precipitation; this means that the tropical vegetation, hydrology and climate system in South America could change very rapidly to another steady state. (C6; minor)

#### B: Dutch Review 2010

•We have a minor comment to make on this statement, which originates from Section 13.4.1 of Chapter 13 (page 596). The statement was based on Rowell and Moore (2000), which is a peer-reviewed report by the World Wide Fund for Nature and the International Union for Conservation of Nature (WWF/IUCN) on a global review of forest fires, and not a study on changes in vegetation due to climate change. That report, in turn, was mainly based on Nepstad et al. (1999) (in *Nature*). *In our opinion, both documents were not the most obvious choice of* 

More adequate peer-reviewed, scientific journal literature would have been available to support this statement, such as Cox et al. (2000; 2004) (C6). This minor comment has no consequences for the IPCC conclusions in the various Summaries for Policymakers.

#### Assessing an IPCC assessment

An analysis of statements on projected regional impacts in the 2007 report



#### A: IPCC 2007

•By mid century, increases in temperature and associated decreases in soil water are projected to lead to gradual replacement of tropical forest by savanna in eastern Amazonia. Semi-arid vegetation will tend to be replaced by arid-land vegetation.

#### B: Dutch Review 2010

•This statement is fully supported by the underlying material.

#### A: IPCC 2007

•There is a risk of significant biodiversity loss through species extinction in many areas of tropical Latin America.

#### B: Dutch Review 2010

•This statement is fully supported by the underlying material.

## George Orwell, "1984"

 "Speaking the Truth in times of universal deceit is a revolutionary act."

"The great enemy of clear language is insincerity "

How to do science in such an argumentative area and under new levels of scrutiny, especially from a largely hostile and sometimes expert blogosphere?

(From the Economist, about the important issues raised by two committees; the Climatic Research Unit (CRU) and The Dutch environmental-assessment agency )

Science behind closed doors, published on Jul 8th 2010 http://www.economist.com/node/16537628?story\_id=16537628

## Research Integrity

Research Communication Integrity

# IPCC "Background & Tips for Responding to the Media" letter by IPCC Chair, 05 July 2010

"I would also like to emphasize that enhanced media interest in the work of the IPCC would probably subject you to queries about your work and the IPCC. My sincere advice would be that you keep a distance from the media and should any questions be asked about the Working Group with which you are associated, please direct such media questions to the Co-chairs of your Working Group and for any questions regarding the IPCC to the secretariat of the IPCC"

#### Clarification Letter by IPCC Chair, 15 July 2010

First of all, the IPCC does not seek in any way to discourage you from engaging in discussions with the media about your own work. To the contrary, we see such interaction as an important way of making your research more accessible to the public.

Second, all of us at the IPCC are immensely proud of our author team and have no interest in micro-managing your interactions with the media. I only remind you that the AR5 process is in its beginning stages and our final report is several years away. No one, including me, can speak to the likely findings of the AR5.

Lastly, we ask that you forward all media inquiries about official IPCC policies to the Working Group co-chairs or the IPCC Secretariat. This protocol is not an attempt to muzzle anyone. It is a standard procedure for large intergovernmental organizations and is intended to draw a distinction between the official work of the IPCC and your own work or that of your institution.

#### Lessons to IPCC

- The self correction nature of scientific activity process **is not** sufficient to counteract the denialist bias from an important part of the media.
- Scientists (associated to IPCC or not), should be more (pro-) active, honest and transparent to the public front on a continuous manner (instead of subsiding IPCC reports every 5 or 6 years.)
- The IPCC author selection process should be an open and transparent process.
- Complexity is a key word. Neither journalists nor scientist should be scared of it. On the contrary, they should emphasize even more uncertainties and knowledge gaps against the background of very complex and interacting natural and social systems.