

CLIMATE CHANGE, SCIENCE COMMUNICATION AND PUBLIC ENGAGEMENT

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- SciDev.Net

Important to communicate

- In the past 150 years, the global average temperature increased by $0.6 \pm 0.2^{\circ}\text{C}$ and the density of greenhouse gases in the atmosphere have raised significantly. The most important one, carbon dioxide, has reached 368ppmv.



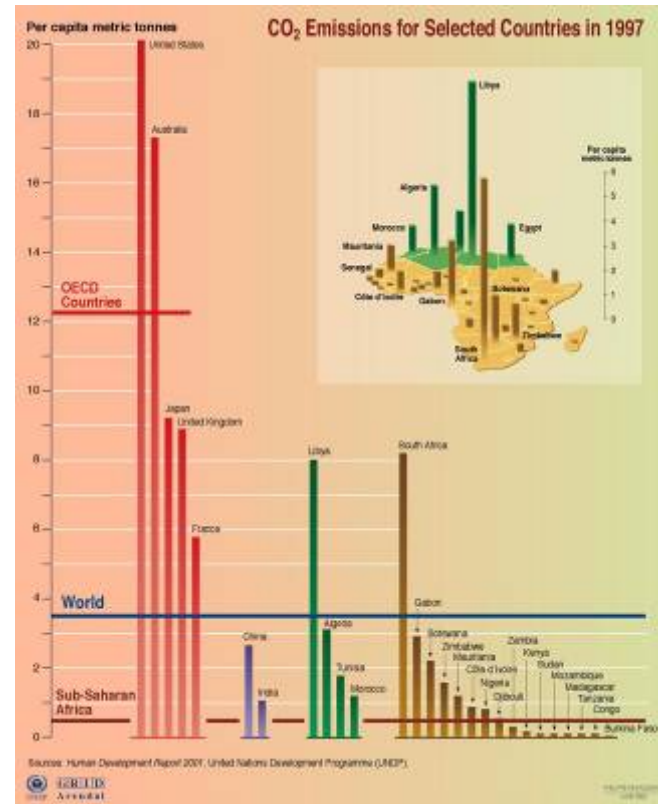
Important for China

- China produced carbon dioxide emission just fewer than that of the United States



Important for China

- China's carbon dioxide emission is very likely to surpass that of the United States between 2025 and 2030



Few communication

- Few communication of climate change sciences has been done in China.



About the presentation

- This paper analyzed climate change reporting in four newspapers – the *People's Daily* (PD), the *Science and Technology Daily* (STD), *Science Times* (ST) and *Beijing News* (Xinjingbao, BN).



About the presentation

- Two randomized surveys carried out among Chinese science journalists and climate-related Chinese scientists.



Media contents statistics

Newspapers	Between January and February 2005	Between July and September 2005	Between November and December 2005
People's Daily (PD)	23	24	13
<i>Science and Technology Daily</i> (STD)	24	27	23
<i>Beijing News</i> (BN)	6	5	3
<i>Science Times</i> (ST)	4	5	7

Why the three periods

- In the first period, Kyoto Protocol took effect and the climate change attracted wide public attention.
- In the second period, the hurricane Katrina, the G8 summit in Gleneagles, Asia-Pacific agreement to deal with climate change
- In the third period, the global post-Kyoto negotiation was held in Montreal, Canada

Primary finding

- with China's growing integration into the international community, Chinese media do not shun heating international topics



Primary finding

- The official Chinese media have reported more climate change news.
- Market-oriented media's climate change-related reporting is much fewer.



Finding and analysis

- The relatively more coverage of PD, STD and ST on climate change does not mean they have conveyed more effective science information to the public.



Finding and analysis

- They reported climate change as one of the routine reporting, instead of focusing on human-interest researches.



Common features in the four newspapers' climate change reports.

- 1. All of them have accepted global warming and its impact on the environment as an accomplished fact.
- 2. Few of the newspaper climate change reports covered the situation in China.
- 3. Most of the stories did not quote any Chinese climate scientists.

Finding and analysis

- To sum up, we find the Chinese media reporting of climate change has described the phenomenon as something certain but remote.
- The lack of detailed description of scientific explanation and scientific debate is unlikely to ignite the readers' interests in the topic,

Surveys of Journalists and Scientists

- Email questionnaires to 50 science-related journalists known by the author and 28 questionnaires were reclaimed.
- Sent emails containing the questions to 50 scientists and received 21 questionnaires.



Questions for journalists

- 1. Have you or your media reported climate change-related news?
- 2. Have you interviewed climate scientists or institutes, or receive their news releases?
- 3. What factors do you think lead to the lack of in-depth reporting of climate change in mass media?



Finding and analysis

- 70% of interviewed journalists said they did not report any scientific controversies on climate change.
- Among the journalists' answers, having randomly interviewed climate scientists accounts for 18%), just a little higher than the choice "none of such activities" (14%).
- This indicates that the mutual communication between journalists and the climate science communities is very low.

Finding and analysis

- The poor communication between journalists and science community was selected as the No. 1 reason leading to the poor reporting. Others include the editor's lacking interest (54%), journalists' lacking professional knowledge (39%).



Questions for scientists

- 1. Do you think in the past year there was enough climate coverage in the mass media, enough to help the public to learn the scientific truth?
- 2. Have you been connected to media or journalists on the topics related to climate change in the past year?
- 3. What do you think are major barriers for the efficient communication of climate science among the public?

Finding and analysis

- 1. For the first multiple-choice question, none of them chose “enough coverage” and the most interviewed scientists thought there were many reporting but they were not accurate and did not touch the uncertainties and controversies in the climate change (67%).



Finding and analysis

- Questions: Have you been connected to media or journalists on the topics related to climate change in the past year
- Most scientists gave the answers: none of such activities (29%), accidentally receiving the interviews (29%), 24% of the scientists received specialized interviews and only 14% of them used to write for media.

Finding and analysis

- What do you think are major barriers for the efficient communication of climate science among the public?
- Most of the scientists thought there were no institutional communication mechanism (47.6%). The scientists also agreed that there were not enough contacts between journalists and scientists (43%) and media journalists lack enough professional knowledge (43%). Only 14% scientists agreed that media lack the enthusiasm to report climate change.

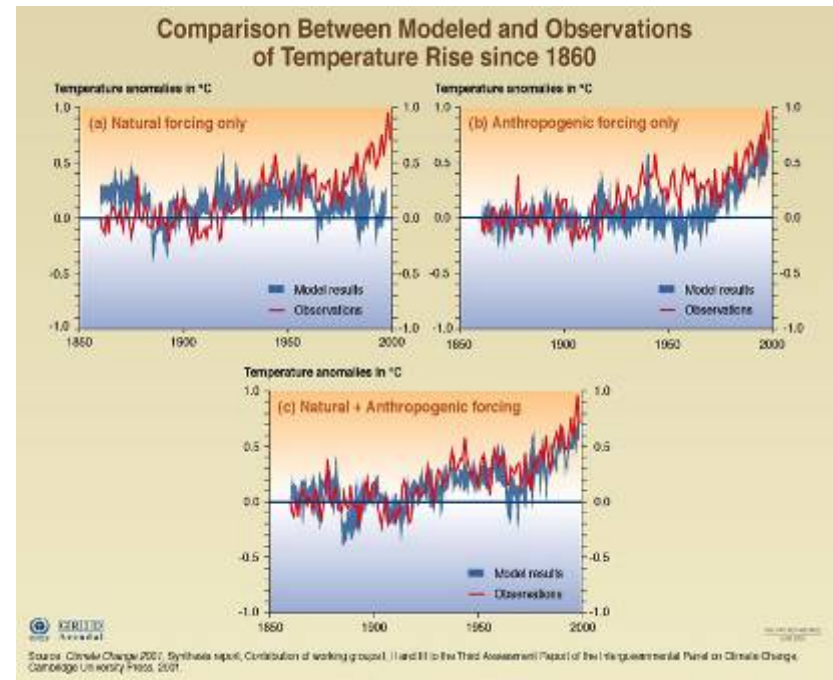
Conclusions

- As a whole, the surveys conclude media coverage of climate change lacked in-depth analysis, the voice and research of the Chinese scientists and the real climate situation in China and its role in the global warming.



Conclusions

- Many journalists thought they have covered the major work of the Chinese scientists, while the scientists said journalists have not interviewed them. This indicates that many journalists were not aware of the insufficiency.



Conclusions

- In China, the reported high certainty has reduced journalists' willingness to talk with scientists.
- This might be related to the lack of balanced reporting as a basic journalistic professionalism in China

Conclusions

- Many Chinese science media remained old-typed official media, lacking the sense of competition and attracting readers while the popular, market-driven media have lack interest in the science coverage.

Conclusions

- Tracing the political, national, and media's institutional factors in influencing the promulgation of the climate change science will certainly help us better understand how a science culture is formed in certain topic.

Added information

- Media monitoring between 2 Feb when the IPCC-4 was released to 2 March.
- *People's Daily* (PD), the *Science and Technology Daily* (STD), and *Beijing News* (Xinjingbao, BN). *Science Times* (ST) is not included because of the difficulty in searching.



Article numbers

- *People's Daily*: 12
- *The Science and Technology Daily*: 27
- *Beijing News*: 4



Findings & New Findings

- **Some points same as previous study:**
- The official Chinese media have reported more climate change news/Market-oriented media's climate change-related reporting is much fewer.
- Global warming and its impact on the environment as an accomplished fact, no scientific uncertainties are mentioned

Findings & New Findings

- **But some points are different:**
- The newspaper climate change reports have all touched the situation in China relevant to climate change, especially with recent weather.
- More the stories quoted Chinese climate scientists.
- More in-depth news stories, and more science in the reporting.

Findings & New Findings

- **Common styles:**
- The role of China is touched, but only one article mentions China as World's No. 2 carbon dioxide emitter.
- No discussions concerning whether China should have an emission reduction
- Although China is involved, still lacking vivid description of CC's impacts on China.

Initial Analyses-1

- IPCC-4 as a hot and widely-concerned news hook, leading to more in-depth reporting.
- Some government activities surrounding IPCC-4 make it easier to reach Chinese climate scientists.
- With quickly heating topics of climate change and global warming, Chinese audiences have hoped to get more information on climate change.

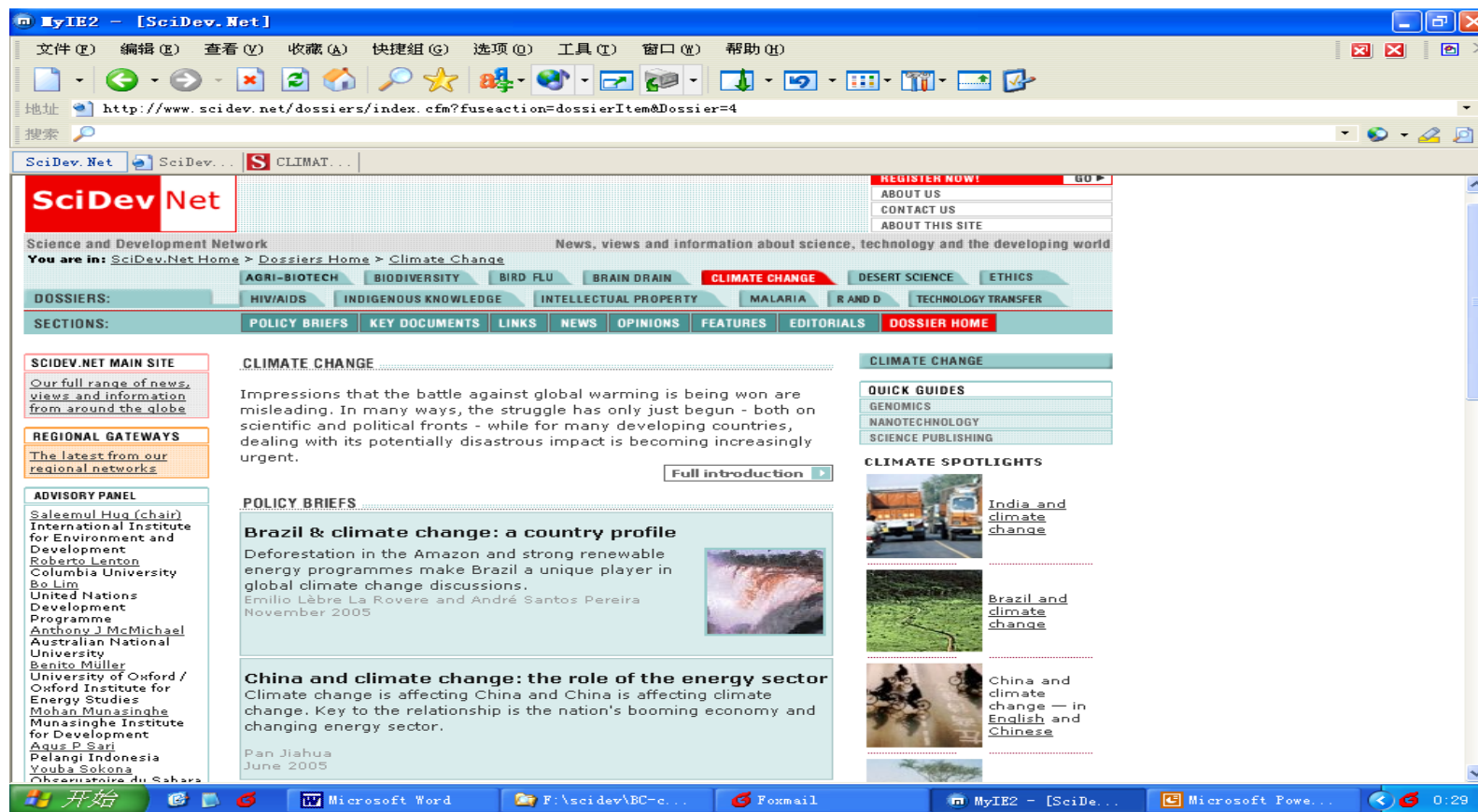
Initial Analyses-2

- But the lack of reporting/discussion on China's role in climate change indicates journalists still lack full awareness. (Not supported by interviews)
- Lack of a full scenario of China's situation concerning climate change may be because of the lack of sufficient information. It may also be caused by journalists' insufficient background knowledge. (S&T Times have done quite well in reporting more Chinese situation.)

Initial conclusions

- Like the suggestions made in the previous study, Chinese journalists should still try to improve their balancing reporting skills – quoting opinions from different sides.
- The link between climate change and daily life in reporting should be enhanced.
- Climate change is not only an environmental issue or a scientific issue. More multidisciplinary approaches are needed for good reporting.

SciDev.Net climate change dossier



The screenshot shows a web browser window displaying the SciDev.Net climate change dossier. The browser's address bar shows the URL: <http://www.scidev.net/dossiers/index.cfm?fuseaction=dossierItem&Dossier=4>. The website header features the SciDev.Net logo and navigation menus for various topics including AGRI-BIOTECH, BIODIVERSITY, BIRD FLU, BRAIN DRAIN, CLIMATE CHANGE (highlighted), DESERT SCIENCE, and ETHICS. Below the header, there are sections for DOSSIERS and SECTIONS, with CLIMATE CHANGE being the active dossier. The main content area includes a "CLIMATE CHANGE" section with a "Full introduction" link, a "POLICY BRIEFS" section with articles on "Brazil & climate change: a country profile" and "China and climate change: the role of the energy sector", and a "CLIMATE SPOTLIGHTS" section with images and links for "India and climate change", "Brazil and climate change", and "China and climate change — in English and Chinese". The left sidebar contains links to the main site, regional gateways, and an advisory panel with names like Saleemul Huq, Roberto Lenton, and Benito Müller. The bottom of the browser shows the Windows taskbar with open applications like Microsoft Word and Foxmail.

SciDev.Net climate change dossier

MyIE2 - [SciDev.Net]

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气候变化

如果人们认为针对全球变暖的战役已经取得胜利, 这种感觉是错误的。在许多方面, 斗争才刚刚开始, 斗争也不仅仅局限在科学和政治战线。对于许多发展中国家, 对付气候变暖潜在的灾难性影响日益迫切。本档案库提供了有关目前就气候变化的性质和含义进行争论的新闻、分析和背景文章。

新闻

中国准备发布国家气候变化战略规划
随着中国科学家发出严重警告, 该国将启动其第一个全国性计划来减轻和适应气候变化。
2007年2月9日
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中国启动碳排放交易项目
中国启动了两个新的碳排放交易项目, 帮助开发其贫困地区。
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SciDev.Net climate change dossier (政策简述勾勒了全球气候变化争议中的关键问题)



The screenshot shows a web browser window with the following content:

- Address bar:** <http://www.sci-dev.net/chinese/dossiers/index.cfm?fuseaction=policybriefs&dossier=16>
- Page Title:** SciDev.Net | SciDev.Net | SciDev.Net | CLIMAT...
- Section 1:**
 - 标题:** 适应气候变化：道理与方法
 - 作者:** Saleemul Huq and Richard J.T. Klein
 - 日期:** November 2005
 - 摘要:** Saleemul Huq 和 Richard J.T. Klein解释了为何适应气候变化对于扶贫工作来讲是必要的和紧迫的工作。他们也介绍了在国家和全球层面是如何对付这个问题的。
- Section 2:**
 - 标题:** 反对人类行动引起气候变化的例子
 - 作者:** David Dickson
 - 日期:** October 2001
 - 摘要:** 我们对气候变化科学的理解仍然存在分歧与不确定性。但是它们并不必然削弱这样的意见，即如果不采取紧急行动，可能会发生程度令人难以接受的全球变暖。
- Section 3:**
 - 标题:** 人类导致气候变化的证据
 - 作者:** 麦克·缪尔和西蒙·托拉克
 - 日期:** October 2001
 - 摘要:** 大多数气候专家相信，不断增加的化石燃料的利用、以及扩张的农业和加剧的森林砍伐对气候具有一种可察觉的影响，而且将来也如此。本政策综述总结了这方面的证据。
- Section 4:**
 - 标题:** 海平面上升的威胁有多大
 - 作者:** 西蒙·托拉克和麦克·缪尔
 - 日期:** October 2001
 - 摘要:** 全球变暖不光通过融化冰山和其它地面冰层导致海平面上升，而且海水变暖导致的体积扩张也是海面上升的原因之一。海平面上升造成的结果具有重大影响，不过还是可以采

Links

- **AN e-GUIDE TO SCIENCE COMMUNICATION:**
http://www.scidev.net/ms/sci_comm
- **SciDev.Net Climate Change Dossier:**
<http://www.scidev.net/climate/>

Gratitude

- Thank Zu Wentao and other British Council colleagues for their tremendous efforts to make the event successful held.
- Thank Prof. Zhang Chengyi's suggestions on the workshop topics in the beginning.
- Thank all journalists' colleagues on supporting this event!

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