Human Frontier Science Program (HFSP)

Scientific Integrity

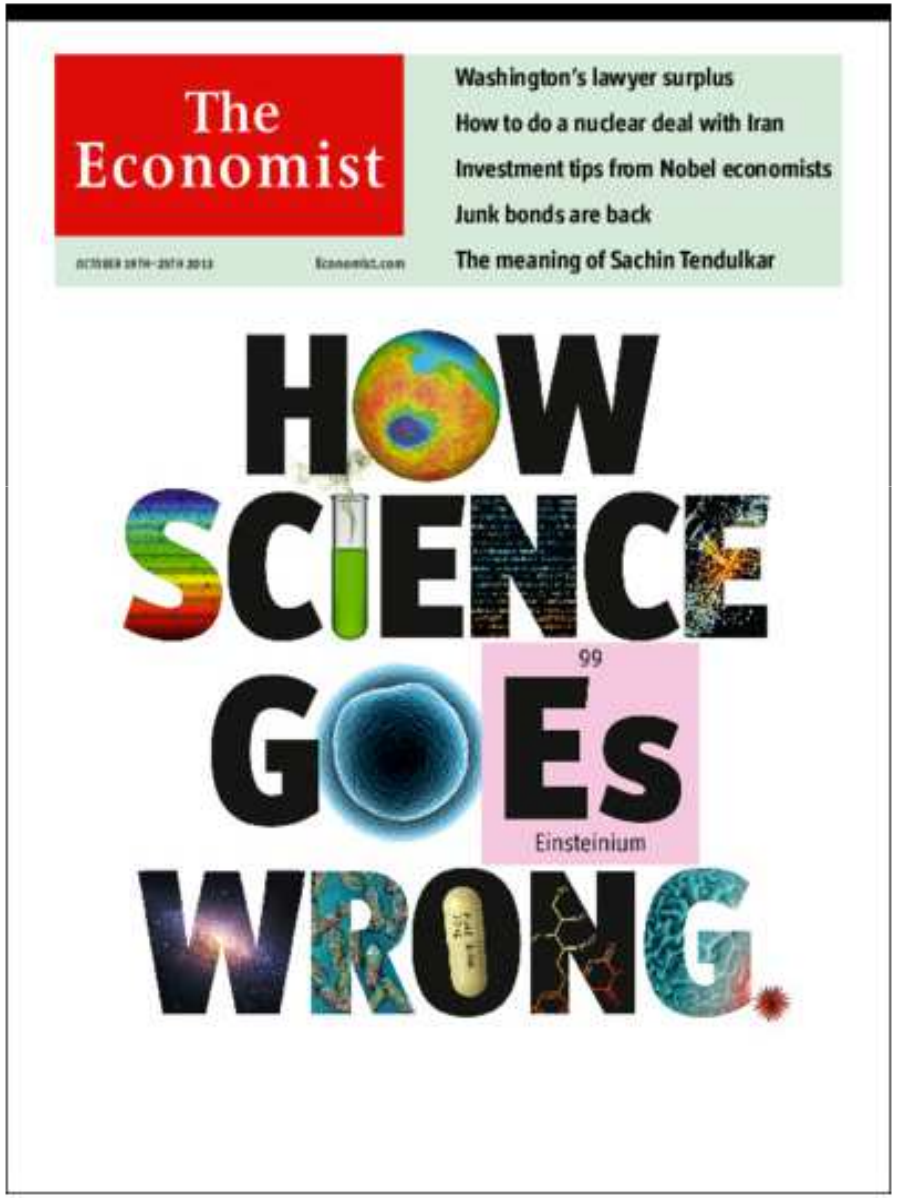
Prof. Dr. Ernst-Ludwig Winnacker

HFSP, Secretary-General

World Science Forum

Rio de Janeiro, November 25th, 2013

"Most published research findings are probably false" (Ioannidis, 2005)



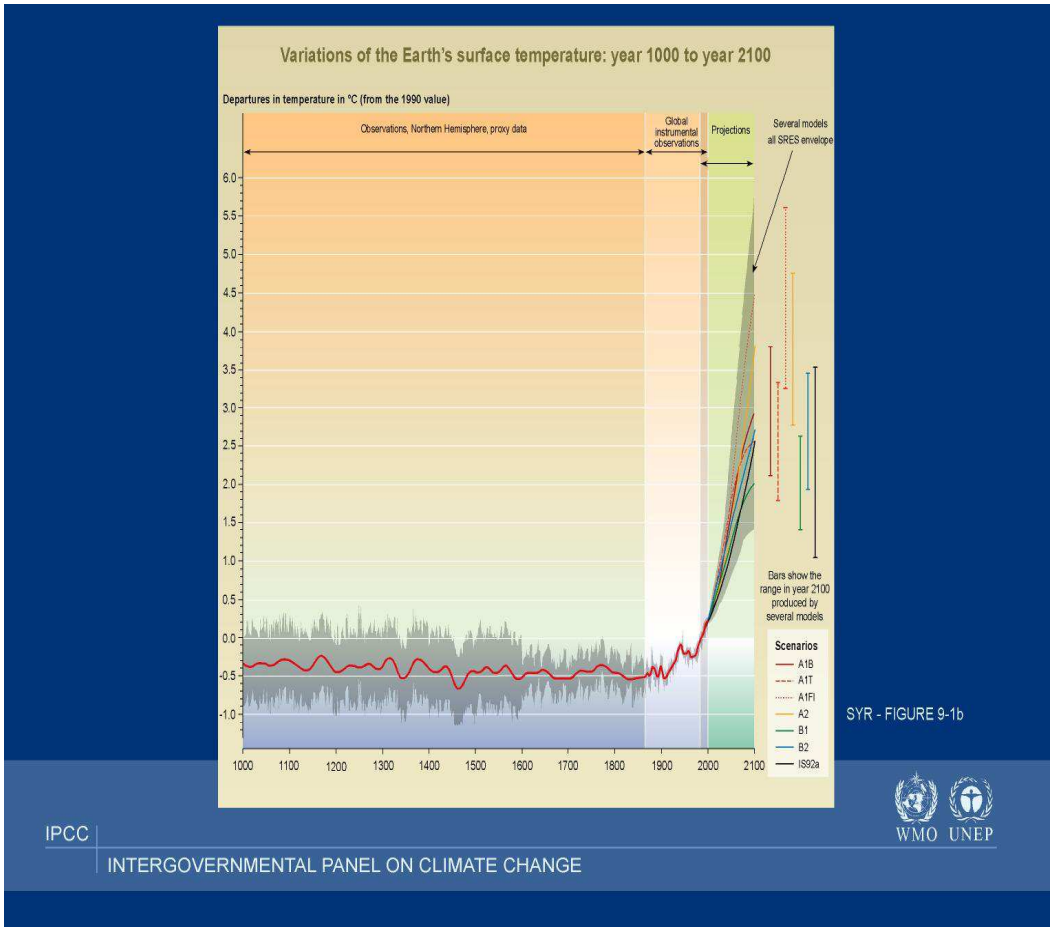
October 19th, 2013

“Trouble at the lab”

The Economist, October 19th, 2013

- Irreproducibility of data and of clinical studies
- Tacit knowledge, soft-ware availability
- Statistical mistakes, IPPC 2007 study
- Weaknesses in peer-review, minimal-threshold journals
- Incompetence, fraud, fabrication, plagiarism
- Lack of a culture of scepticism

4th IPCC report 2007



"Problems with the IPCC 4th assessment report"



"Glaciers in the Himalaya are receding faster than in any other part of the world and, if the present rate continues, the likelihood of them disappearing by the year 2035 and perhaps sooner is very high if the Earth keeps warming at the current rate".

ScienceNews
MAGAZINE OF THE SOCIETY FOR SCIENCE & THE PUBLIC

Sunday, January 24th, 2010

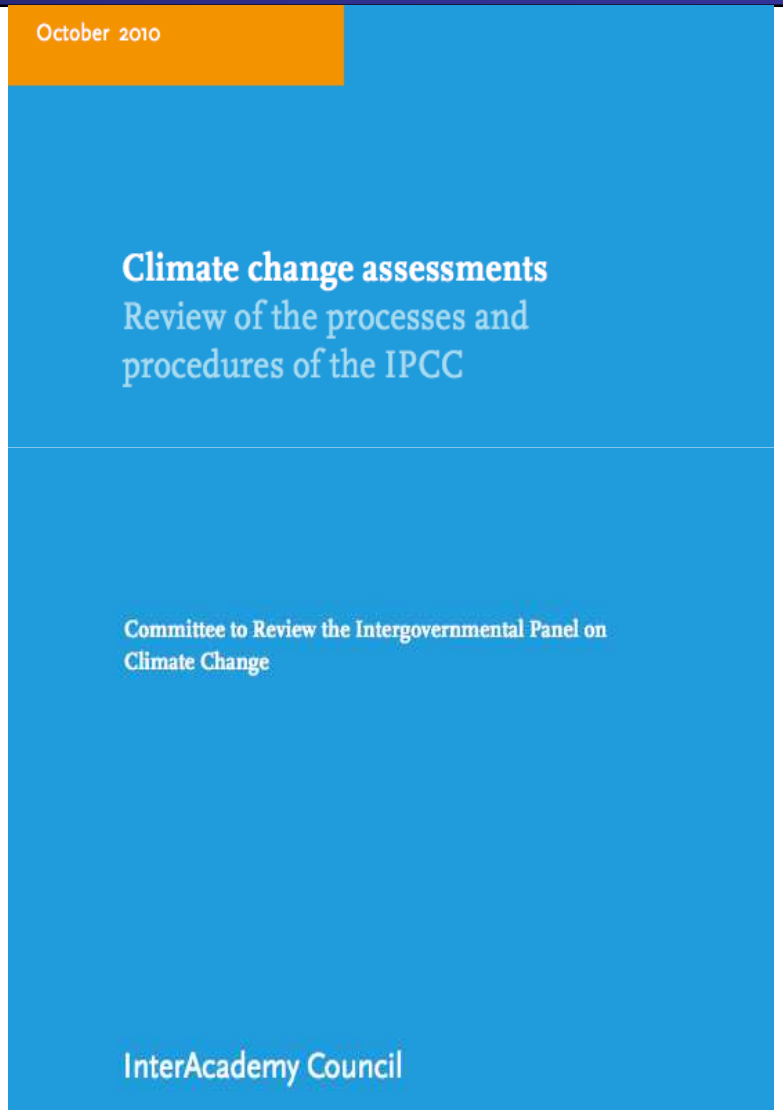
IPCC's Himalayan glacier 'mistake' not an accident

Murari Lal, the coordinating lead author of the 2007 IPCC report's chapter on Asia told ScienceNews that he knew there were no solid data to support the report's claim that Himalayan glaciers – the source of drinking and irrigation water for downstream areas throughout Asia – could dry up by 2035.

Climate change assessments

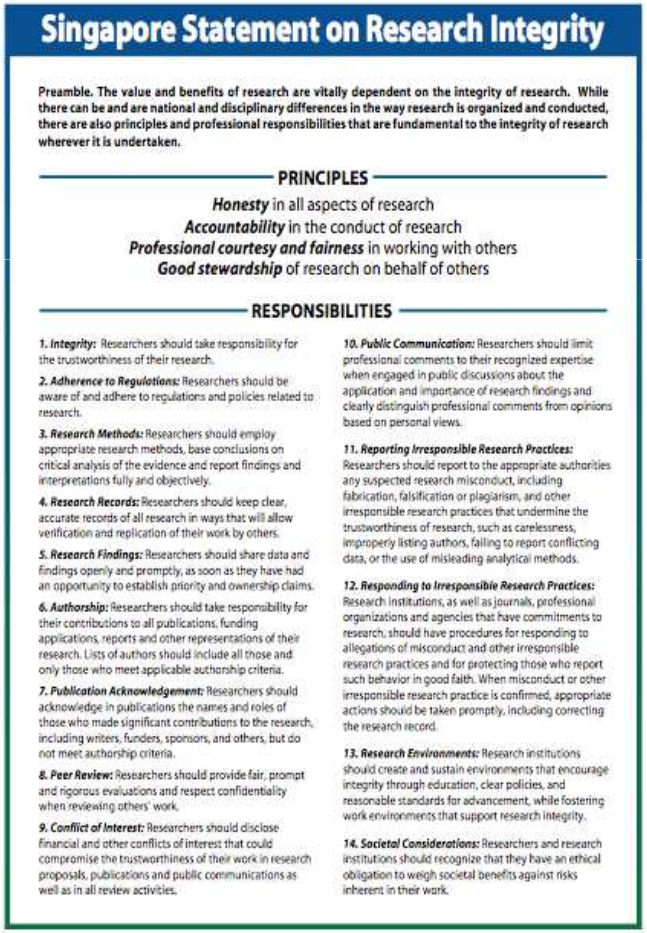
Review of the Processes and Procedures of the IPCC

InterAcademy Council
August 30, 2010



Singapore Statement on Research Integrity

...principles and responsibilities for research worldwide...



Singapore Statement on Research Integrity

Preamble. The value and benefits of research are vitally dependent on the integrity of research. While there can be and are national and disciplinary differences in the way research is organized and conducted, there are also principles and professional responsibilities that are fundamental to the integrity of research wherever it is undertaken.

PRINCIPLES

Honesty in all aspects of research
Accountability in the conduct of research
Professional courtesy and fairness in working with others
Good stewardship of research on behalf of others

RESPONSIBILITIES

1. Integrity: Researchers should take responsibility for the trustworthiness of their research.

2. Adherence to Regulations: Researchers should be aware of and adhere to regulations and policies related to research.

3. Research Methods: Researchers should employ appropriate research methods, base conclusions on critical analysis of the evidence and report findings and interpretations fully and objectively.

4. Research Records: Researchers should keep clear, accurate records of all research in ways that will allow verification and replication of their work by others.

5. Research Findings: Researchers should share data and findings openly and promptly, as soon as they have had an opportunity to establish priority and ownership claims.

6. Authorship: Researchers should take responsibility for their contributions to all publications, funding applications, reports and other representations of their research. Lists of authors should include all those and only those who meet applicable authorship criteria.

7. Publication Acknowledgement: Researchers should acknowledge in publications the names and roles of those who made significant contributions to the research, including writers, funders, sponsors, and others, but do not meet authorship criteria.

8. Peer Review: Researchers should provide fair, prompt and rigorous evaluations and respect confidentiality when reviewing others' work.

9. Conflict of Interest: Researchers should disclose financial and other conflicts of interest that could compromise the trustworthiness of their work in research proposals, publications and public communications as well as in all review activities.

10. Public Communication: Researchers should limit professional comments to their recognized expertise when engaged in public discussions about the application and importance of research findings and clearly distinguish professional comments from opinions based on personal views.

11. Reporting Irresponsible Research Practices: Researchers should report to the appropriate authorities any suspected research misconduct, including fabrication, falsification or plagiarism, and other irresponsible research practices that undermine the trustworthiness of research, such as carelessness, improperly listing authors, failing to report conflicting data, or the use of misleading analytical methods.

12. Responding to Irresponsible Research Practices: Research institutions, as well as journals, professional organizations and agencies that have commitments to research, should have procedures for responding to allegations of misconduct and other irresponsible research practices and for protecting those who report such behavior in good faith. When misconduct or other irresponsible research practice is confirmed, appropriate actions should be taken promptly, including correcting the research record.

13. Research Environments: Research institutions should create and sustain environments that encourage integrity through education, clear policies, and reasonable standards for advancement, while fostering work environments that support research integrity.

14. Societal Considerations: Researchers and research institutions should recognize that they have an ethical obligation to weigh societal benefits against risks inherent in their work.

2nd World Conference on Research Integrity

September 22nd, 2010

Forging an international consensus on responsible conduct



with:
Recommendations for Researchers and Institutions involved in Research., ie for Funding Agencies, Journals, Academies, Policy makers

September 2012

Outline of the IAC Report

- **The Research Plan**
  - Safeguarding privileged information
- **Carrying Out Research**
  - Responsibility for upholding responsible standards
- **Reporting Research Results**
  - Peer Review, Authorship and Referencing
- **Communicating with Policy Makers and the Public**
  - Reporting uncertainties or probabilities
- **Institutional Responsibilities**
  - Universities, Journals, Funding Agencies

Speakers List – Scientific Integrity

- **Paulo Sergio Lacerda Beirão,** Universidade Federal de Minas Gerais, Belo Horizonte, Brasil
- **Bengt Gustafsson**, Uppsala University, Sweden
- **Indira Nath**, National Institute of Pathology (ICMR), New Delhi, India
- **Nicholas Steneck**, Director, Research Ethics and Integrity Program, University of Michigan, Institute for Clinical and Health Research, USA





Many thanks
for your attention

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