



CONFIDENCE, CREDIBILITY AND AUTHORITY IN CLIMATE SCIENCES AND POLITICS

20-21 November 2014

Musée des Arts et Métiers
60, rue Réaumur 75003 Paris

Programme and free registration : <http://climaconf.hypotheses.org>

Confidence, Credibility, and Authority in Climate Sciences and Politics

International Conference organized by Amy Dahan and H  l  ne Guillemot

Conference of the ANR ClimaConf Project, *Climate change, expertise and futures* team (Centre A. Koyr  )

Thursday, 20th and Friday, 21st November 2014

Mus  e des arts et m  tiers (Salle de conf  rence), 60 rue R  aumur, 75003 Paris

This international conference aims at analysing issues of confidence, credibility and authority in the area of climate change, both within climate sciences, climate issue governance and IPCC expertise. It concludes the ANR ClimaConf project, which brings together physicists from the Laboratoire de M  t  orologie Dynamique (LMD) and social science researchers from the Centre Alexandre Koyr   (CNRS-EHESS) since four years. ClimaConf project was conceived in 2010, shortly after the failure of the Copenhagen COP, at a time of critiques towards IPCC, attacks against climate sciences, and climatologists' email hacking (« climategate »). In this context, it became necessary to reflect on the issue of confidence in models and simulations, on links between sciences and politics, on expertise and its diagnostics, and on UN governance.

Four years later, the blockages of UN climate negotiations have led to a different way of addressing these issues. It has become clear that recognition of the scientific diagnosis of global climate change is not enough to lead to effective policies to reduce greenhouse gas emissions. The successive reports of the IPCC have shown that climate risk itself is increasingly certain, although its contours sometimes remain imprecise. What is in question is not so much awareness of the risk but the ability of climate expertise to lead to policies, and policy-makers' will to make a priority of this issue while they are confronted with other issues and crisis (economy, growth, etc.). The credibility of the regime itself is in question. There is neither spreading confidence between science, expertise and policy, nor a contagion of distrust, but instead a more complex relationship between these different arenas that we seek to explore in the conference.

Obviously, the meaning of "confidence" is not identical in these different domains. Although for climate scientists the question is indeed that of confidence in their models and productions, in relation to the IPCC it may be more appropriate to speak of credibility and legitimacy. However, for climate governance and the climate regime, even this combination of notions still seems to be insufficient to analyze the trajectory and deadlocks of the process. The articulation between these different fields is a cross-cutting question, linked to the relations between science and politics on the climate problem, as they have been constructed through the IPCC and the UNFCCC, developed over more than 25 years, and may be undergoing transformation today.

To address these questions, the workshop is built around four sessions, each of which will include participants from both the climate sciences and the social sciences. Beyond the areas of global climate modeling, expertise, and climate governance, we also wished to pose the essential questions of climate change at the regional and local levels—questions that we have not yet worked on directly, but that should be the focus of future attention.

1- *Construction of confidence in models and climate projections.* How to understand the interlinkages between confidence and uncertainties that characterize climate modeling? What are modelers' confidence criteria? How can modelers make progress in both predicting and understanding the climate, despite the mutual entanglement of different processes? How should the diversity of visions on climate modeling and its evolution be analyzed? Modelers and social science researchers will offer their respective points of view, from the inside and from the outside, on the establishment of confidence in simulations.

2- *IPCC expertise: tensions between science and policy.* The very principle of scientific-political expertise raises essential questions. Does addressing the political sphere impose constraints on the construction of expertise—notably in the IPCC reports? Are summaries for policymakers too alarmist,

or on the contrary do they minimize the risks? How does the IPCC gain its scientific authority? This session will combine reflective accounts from climatologists who are IPCC authors and social science analyses.

3- *Intense failure of Climate governance and need for a new governmentality order.* The results of global governance have been, at the least, disappointing. How should the blockages of the political process of global climate negotiations be understood? Are its failures mainly due to framing, to the founding paradigms of the negotiations process, to much broader structural factors (geopolitical factors, economic and financial globalization, etc.)? How arises the issue of a new order of governmentality? In this session we will confront the points of view of researchers and observers of the process from different disciplines.

4- *Climate change sciences and policy at the local level.* What forms does the question of climate change take at the local level, where it is confronted with other priorities, agendas and kinds of knowledge? What controversies are stirred by the "top-down" regionalization of climate models, among modelers and in other scientific communities, such as geographers? Finally, what role might the emphasis on adaptation in the IPCC's Fifth Assessment Report play in possible reconfigurations of responses to climate risk? These questions will be discussed by climatologists from different perspectives and research areas, as well as researchers from other disciplines.

At last, while COP21 in Paris is being prepared, we wish to extend the scope of reflections during a concluding general discussion and inquire about potential future perspectives of the "climate regime" – climate science, expertise, governance, global framing of the issue – in the perspective of COP21 and beyond.

A few presentations will be given in French, simultaneous translation into English will be available

Participation at the conference is free, but registration is compulsory.

> Please register on <http://climaconf.hypotheses.org/>

THURSDAY, 20th NOVEMBER

8h45 - 9h

Welcome coffee

9h - 9h30

Introduction

Amy Dahan (Centre A. Koyré) and H el ene Guillemot (Centre A. Koyr e)

9h30-12h45

Construction of Confidence in Climate Models and Projections

Chair: R emi Mosseri (CNRS)

Constructing evidence and confidence: How climate scientists used their models and why they trusted them (1960-1980)

Matthias Heymann (Aarhus University)

Confidence in model building

Jean-Yves Grandpeix (LMD – IPSL)

Coffee break

How to advance in long-standing uncertainties?

Sandrine Bony (LMD – IPSL)

Plurality of confidence criteria among climate modelers

H el ene Guillemot (Centre Alexandre Koyr e)

12h45 - 14h

Lunch (on site)

14h - 17h30

Tensions between Science and Policy around IPCC Expertise

Chair: Sheila Jasanoff (Harvard University)

Rules of Procedure: IPCC review in the public arena, 1995-2014

Paul Edwards (University of Michigan)

Long term climate projection: tension between continuity and novelty, between describing and understanding

Jean-Louis Dufresne (LMD – IPSL)

Certainties and uncertainties: the treatment of clouds and aerosols in the IPCC AR5

Olivier Boucher (LMD – IPSL)

Detection and attribution: Human impact on climate, or climate impact on humans?

Wolfgang Cramer (Universit e d'Aix-Marseille)

FRIDAY, 21st NOVEMBER

9h15 - 9h30

Welcome coffee

9h30 - 12h30 **Climate Governance Blockages, Rethinking the Framing** Chair: Stefan Aykut (LATTS & IFRIS)

The climate governance, a schism of reality

Amy Dahan (Centre Alexandre Koyré, IFRIS)

The paradigm change in climate policy: from mainstream price theory to classical production economics

Michel Damian (Université Pierre Mendès-France, Grenoble)

Debating the Science and Politics of Climate Change

Hayley Stevenson (University of Sheffield)

12h30 - 14h

Lunch (on site)

14h - 17h15 **Science and Policy at Local Level** Chair : Robert Vautard (LSCE, IPSL)

The construction of confidence and uncertainties in regional modelling

Samuel Somot (CNRM-GAME Météo-France)

Modelling impacts on agricultural production - Confidence and uncertainties

Benjamin Sultan (LOCEAN-IRD)

Two examples of a science under pressure: West African modelling and Jouzel report

Frédéric Hourdin (LMD-IPSL) and Samuel Somot (CNRM-GAME Météo-France)

Coffee break

Peculiarly British? The Making of 'Good' Regional Climate Science, Policy and Projections

James Porter (University of Leeds)

Contested Epistemic and Political Authority - The Case of IPCC

Silke Beck (Helmholtz Centre for Environmental Research)

17h15 - 18h30 **General discussion**

The future of climate “regime” towards COP21 and beyond

Introduction by Edwin Zaccaï (ULB, Brussels)