United States House of Representatives
Committee on Science and Technology

United Kingdom House of Commons
Select Committee on Science and Technology

Collaboration and Coordination on Geoengineering

Introduction

A joint inquiry on geoengineering was initiated in 2009 by the Science and Technology committees of the U.S. House of Representatives and the U.K. House of Commons. Geoengineering is the deliberate, large-scale modification of the Earth's climate systems for the purposes of counteracting climate change. This document serves as an explanation of the committees' co-ordination and collaboration on the topic.

Background

In April 2009, the U.K. Committee with the remit for science visited Washington D.C. Its Members met with Representative Bart Gordon, Chairman of the U.S. House of Representatives Science and Technology Committee, and the chairmen of both committees—Phil Willis MP was the Chairman of the House of Commons Committee—discussed topics of mutual interest and potential collaboration. Representative Gordon suggested that there would be value in the two Committees collaborating on an emerging science and technology subject with important international implications.

The committees explored several potential topics and arrangements for coordinating activities. Geoengineering emerged as an attractive subject for the collaboration, particularly as most geoengineering projects will have international implications and require international collaboration. The two committees were at different stages of examination on the subject, with the U.K. Committee having already produced a report and the U.S. Committee initiating a series of preliminary hearings on the subject. This would allow the committees to leverage each other's experience by covering distinct aspects of subject.

Geoengineering

In its report, *Engineering: turning ideas into reality*, (HC (2008-09) 50-I, March 2009) the U.K. Committee recommends that the Government develop a publicly-funded programme of geoengineering research (para 217). Following the Committee's report the U.K. Royal Society published, on 1 September 2009, the findings of a major study into geoengineering, *Geoengineering the climate: science, governance and uncertainty*. This study provided a detailed assessment of the various methods and considered the potential efficiency and unintended consequences they might pose. The U.S. Committee is drawing on the Royal Society's report and its contributing scientists and policy experts, including Professor John Shepherd, who chaired the working group that produced the report.

The U.S. inquiry

The U.S. Committee is examining issues regarding the research and development of geoengineering proposals, focusing their inquiry on the following questions:

- Under what circumstances would the U.S. consider initiating research or the actual deployment of geoengineering?
- Which, if any, of the proposed geoengineering activities warrant further evaluation through coordinated, government-sponsored research, and which activities should be removed from consideration due to unacceptable risks or costs?
- Which U.S. Federal Agencies have either the legal jurisdiction or technical resources to address geoengineering and, of those, which should lead a coordinated U.S. effort?
- To inform international decision-making processes regarding the deployment of geoengineering activities, what level of investment in research is appropriate?
- Which existing international frameworks would govern research, development and deployment of geoengineering? And what new models for international cooperation must be developed to address the unique challenges of geoengineering deployment?
- How could these international frameworks for research and development serve to inform the regulation of deployment of geoengineering activities?

The U.S. Committee began its inquiry by convening a series of hearings and they will publish a final report as a capstone to the joint inquiry. The final report will include the include materials from all three hearings as well as the UK Commons Committee report. The hearings serve both to form the foundation for an informed and open dialogue on the science and engineering of geoengineering, and to provide a Congressional record to underpin the formation of legislation authorizing the United States to engage in geoengineering research at the Federal and international level.

The first hearing provided an introduction to the concept of geoengineering, including the science and engineering underlying various proposals, potential environmental risks and benefits, associated domestic and international governance issues, research and development needs, and economic rationales both supporting and opposing the research and deployment of geoengineering activities.

The second hearing explored the science, engineering needs, environmental impacts, price, efficacy, and permanence of solar radiation management and carbon dioxide removal strategies for geoengineering. The third and final hearing in this series will explore issues relevant to the both the domestic and international governance of geoengineering research, with Phil Willis, Chairman of the U.K. Science and Technology Committee, testifying at this hearing.

The U.K. inquiry

One area which the Royal Society's report identified as requiring examination was the need to develop adequate international mechanisms to regulate geoengineering. It noted the importance of identifying where regulatory gaps existed in relation to geoengineering methods and to establish a process for the development of mechanisms to address these gaps. Taking its cue from the Royal Society's report, the British Committee settled on the following terms of reference for an inquiry into the regulation of geoengineering:

- What UK regulatory mechanisms apply to geoengineering and what changes will need to be made for purpose of regulating geoengineering;
- Is there a need for international regulation of geoengineering and, if so, what international regulatory mechanisms need to be developed; and
- How should international regulations be developed collaboratively?

The outline timetable for the inquiry is:

Nov 2009	Call for evidence
Dec 2009	Deadline for written submissions to the Committee
Jan 2010	Hearing—experts, international organisations and the UK Government.
Mar 2010	Report published and Chairman gives testimony on Committee's report to the U.S Committee.

Committee co-ordination

Due to procedure, the committees will not sit jointly; therefore, the committees are working together by sharing publicly available papers and the evidence and testimony that each has received. In addition, the committees are coordinating inquiry-related activities. The following arrangements have been agreed:

- All U.K. Committee memoranda and transcripts (i.e., papers) will be sent to the U.S. Committee once reported to the House of Commons;
- All U.S. Committee papers will be sent to the U.K. Committee once reported to the Committee Clerk;
- The staff of each Committee are in regular contact with one another and sharing information on geoengineering;
- The U.K. Committee's report will contain a chapter drawing on the experience of two Committees working together with, if necessary, recommendations on arrangements for future coordination; and,

- The Chairman of the U.K. Committee will testify in March 2010 on the conclusions and recommendations in the U.K. Committee report to the U.S. Committee, which will be treated as testimony to the U.S. Committee.