

Interdisziplinäres Forschungsprojekt im Rahmen des Marsilius-Kollegs der Universität Heidelberg

Thema: The Global Governance of Climate Engineering“

Antragsteller: Prof. Dr. Timo Goeschl (Umweltökonomik), Prof. Dr. Hans Gebhardt (Anthropogeographie), Prof. Dr. Ulrich Platt (Umweltphysik)

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Umfang: 600 000 Euro



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Am Marsilius-Kolleg läuft ab August 2009 ein neues interdisziplinäres Projekt „The Global Governance of Climate Engineering“. Das Projekt beschäftigt sich mit Möglichkeiten und Problemen, die sich aus dem Versuch gezielter Beeinflussung des Klimas mit technologischen Mitteln ergeben. Beteiligt sind sind Fächer Humangeographie, Umweltökonomik, Internationales Recht, Umweltphysik, Philosophie und Politikwissenschaft.

Im Rahmen des Projekts werden 7 Promotionsstipendien ausgeschrieben. Um der interdisziplinären Ausrichtung des Projektes Rechnung zu tragen, werden die Promovierenden von einem Betreuungsteam begleitet, dem neben dem Hauptbetreuer auch zwei Wissenschaftler/innen anderer Disziplinen angehören.

Die 7 Promotionsstipendien sind für folgende Themen vorgesehen:

- **Humangeographie:** "International discourses of climate regulation and their regional geographical implications in the fragmented world of the 21th century"
Ansprechpartner: Prof. Dr. Hans Gebhardt, Institut für Geographie, Berliner Str. 48, 69120 Heidelberg; Kontakt: hans.gebhardt@geog.uni-heidelberg.de

- **Umweltökonomik:** "Geo-engineering: Cost-benefits analysis, determinants of willingness-to-pay, and its interaction with international climate change agreements"
Ansprechpartner: Prof. Timo Goeschl PhD, Alfred-Weber-Institut für Wirtschaftswissenschaften, Campus Bergheim, Bergheimer Str. 58, 69115 Heidelberg, Kontakt: goeschl@eco.uni-heidelberg.de
- **Rechtswissenschaft (Internationales Recht):** "International law and international institutions for the global governance of geo-engineering"
Ansprechpartner: Prof. Dr. Dr. h.c. Rüdiger Wolfrum, Max-Planck-Institut für ausländisches öffentliches Recht und Völkerrecht, Im Neuenheimer Feld 535, 69120 Heidelberg, Kontakt: sekrewol@mpil.de
- **Umweltphysik:** "The physics of aerosol and cloud modification for 'climate engineering' and its consequences on the hydrological cycle"
Ansprechpartner: Prof. Dr. Werner Aeschbach-Hertig, Kontakt: aeschbach@iup.uni-heidelberg.de
Prof. Dr. Thomas Leisner, Kontakt: thomas.leisner@iup.uni-heidelberg.de
Prof. Dr. Ulrich Platt, Kontakt: ulrich.platt@iup.uni-heidelberg.de
Adresse: Institut für Umweltphysik, Im Neuenheimer Feld 229, 69120 Heidelberg
- **Psychologie:** "Individual and social responses to climate engineering from a complex problem solving point of view"
Ansprechpartner: Prof. Dr. Joachim Funke, Psychologisches Institut, Hauptstr. 47-51, 69117 Heidelberg, Kontakt: joachim.funke@psychologie.uni-heidelberg.de
- **Philosophie:** "Fiction and forecast: an analysis of medial representation of geoengineering in movies"
Ansprechpartner: PD Dr. Martin Gessmann, Philosophisches Seminar, Schulgasse 6, 69117 Heidelberg, Kontakt: c66@ix.urz.uni-heidelberg.de
- **Politikwissenschaft:** "The Politics of Geoengineering: Global Governance, Leadership and the European Union"
Ansprechpartner: Prof. Dr. Sebastian Harnisch, Institut für Politische Wissenschaft, Campus Bergheim, Bergheimer Str. 58, 69115 Heidelberg, Kontakt: sebastian.harnisch@uni-heidelberg.de

Zielsetzung des humangeographischen Teilprojekts:

The WP covered by Human Geography deals with the expected geographical effects of climate engineering (CE) in an economically and politically fragmented world. CE techniques are discussed very often on a global scale, but have various spatial implications as they affect zonal climates differently and will have consequences for the regional political and economic organization of the global society.

Despite an increasing interest in CE processes, the techniques as well as scientific research are at a rather early stage. There are some expectations on the political side effects of different techniques [Keith 2000, Robock 2008] and there is an emerging branch of public discourse about the chances and risks of influencing climate parameters within the broader debate on Global Change. Climate Engineering as a topic shares the ambivalence between new opportunities (technology) and risks (uncertain regional and global ramifications), that has been characteristic for the risk society of the 21st century.

Under which circumstances global scale intervention into the climate system is rendered acceptable is the result of competing perspectives on how to deal with environmental and technological risks. Central task for the project is therefore an analysis of the discourses about expected consequences of CE techniques and their political and social evaluation in different cultural and political regions of the world. The Discourse Analysis will cover:

- Discourses about technological possibilities and natural risks: which regional impacts of CE processes can be expected and how are they evaluated within different cultural contexts?
- Discourses about the North-South divide and CE as a postcolonial project: How are obligations and risks of CE regionally distributed? Is CE presented as a mean to ease problems of a global fragmentation by mitigating global warming or does it raise fears of exacerbating spatial disparities and North-South conflicts?

- Discourses about spatial governance: which rationalities in handling the CE problem shape the debate? How do perceptions over "fair solutions" differ and how could they be brought together? In which way does the discussion on CE reflect the power structure of global organizations, their main actors and their political interests?

The Discourse Analysis will be based on selected print media, scientific publications in the field of geosciences and publications of international organizations. The research questions suggest a close cooperation of the human geography project with the other disciplines. This applies especially to the staging of CE in movies and the reasons for particular modes of presentation as well as to the psychological project and its research on "fair solutions" and risk perceptions in our (western) societies. As questions of regional effects in an economically and politically fragmented world are concerned, close linkages exist to the projects of environmental economics and political science, the latter assessing the role of the EU as a potential model case for environmental governance. Eventually, the dissertation is expected to benefit from the findings of the environmental physics project as it identifies technological possibilities and associated risks.