

Consortium on Law and Values in Health, Environment & the Life Sciences

Consortium/JDP Proposal Cover Page

Applicant Information

Applicant Name: Jeffrey Broadbent Date: March 16, 2009

Project Title: Development of a Public Use Website on the Social Dynamics of Global Climate Change

Dept./Center: Institute on the Environment Member of Consortium Member of JDP

Dept./Center Head's Name: Jon Foley Dept./Center Head's email: jfoley@umn.edu

Dean's Name: E. Thomas Sullivan Dean's email: Sulli059@umn.edu

How did you hear about this funding opportunity? Consortium announcement

Funding

Amount of funding requested: \$27,566

Explain how these funds will help the Consortium member or JDP partner program further their work on the societal implications of the life sciences. Indicate if more than one Consortium/JDP partner program is involved.]

These funds will employ a research assistant at 50% time during the fall 2009 and spring 2010 semesters to work on the development of the public website. The website will be a portal for the skillful conveyance of original and unique information and research on the social dimensions of global climate change to the public and leaders around the world. The information will initially and primarily be derived from an international research project involving over 19 countries and the international level on the analysis of social reactions to climate change and will expand to include other research and information. The development of such social research and the use of its findings for public education about climate change is one of the core missions of the newly-established Institute on the Environment.

Approvals

Check all appropriate approvals required for your proposal. Approvals must be obtained prior to receipt of funding. If you have applied for approval but have not yet received it, indicate that approval is pending.

IRB Date submitted: 7/10/08 Number: _____ Exemption _____

IACUC Date submitted: _____ Number: _____

Other Explain: _____

For Use by the Consortium Office

- The proposal is 2000 words or less excluding budget, biographies, references & citations.
The proposal includes a work plan with a timeline using months or quarters to identify work to be done and completion dates.
- The budget form is complete including the funds sought for this project, other pending applications for this project, and the amount/source of matching or other funds.
- Faculty descriptions and roles on the project are included.
A biographical sketch for each investigator or project leader (limited to one page per investigator or leader) is included.
- Approval (via email) from the administrator with fiscal responsibility for the department, program, or center is included.
- All necessary approvals are pending or received.

To: Consortium on Law and Values in Health, Environment and the Life Sciences
Re: Consortium/Joint Degree Program Funding Opportunities Members RFP
From: Institute on the Environment, University of Minnesota
Date: March 16, 2009

Proposal Topic: Development of Public Education Website on Social Aspects of Global Climate Change

Project Nature and Importance:

The scientific community has reached consensus: Climate change is real. Driven largely by human activities, it is happening now and will have catastrophic effects worldwide.

Science is the only way we have to study, document, and comprehend the causes of climate change, and science has identified greenhouse gases (GHG) produced by human activities as the cause. The scientific view is available to the world's governments through reports from the United Nations' Intergovernmental Panel on Climate Change (IPCC), a consensus document. But despite global agreements about how to slow or reduce climate change, few governments have mitigated greenhouse gas (GHG) emissions, and global emissions are growing. Few societies feel an urgent need to solve the problem. To address climate change effectively, we must find ways to convince publics and leaders of the need for rapid action, but also show feasible pathways toward viable carbon-neutral ways of living. *The best way forward must involve research on the societal dimensions of global climate change, so we can find the political will to implement effective policies on climate change.*

A research project affiliated with the Institute on the Environment, the COMPON project – COMparing climate change Policy Networks – is providing new answers to these questions. The project identifies the factors that promote or hinder public and policymaker acceptance of the scientific climate change consensus and that contribute to uneven development of effective countermeasures in countries around the world. The countries the project is studying vary in factors that may affect their responses. Some are reducing greenhouse gases; in others, emissions are rising. The project is underway, with basic research funded by government grants in 9 countries, pending in two, and under development in others. *With this Consortium proposal, we seek funding to support the development of a public education and data-access website that will translate the project's research findings, plus related information, into publicly accessible, usable knowledge for improving global and national efforts to mitigate the causes of climate change.*

The Compon project leader, University of Minnesota sociologist Jeffrey Broadbent, has assembled a consortium of researchers from 19 countries (others under formation) and the

international level to investigate how social networks among organizations influence public policies that address climate change (Table 1, attached). The project focuses on three major factors that influence public and policymaker acceptance of the scientific climate change consensus and the sense of urgency about effective countermeasures. These are 1) the strength and credibility of the climate change science community in each country, 2) whether the political framework has places for effective stakeholder participation, and 3) whether effective advocacy coalitions form around the climate change problem. *The working hypothesis argues that the stronger the presence of science credibility, stakeholder participation, and advocacy coalitions in a given country, the more effective will be that country's national response to lowering its GHG emissions.*

The project has established research teams at prestigious universities in 19 cases (countries or areas plus the international level), obtaining funding to begin research in nine, holding international conferences or panels, and developing specific hypotheses, a common survey, and a common analysis method for all cases. Our cases include the most prominent greenhouse gas emitters (Japan, US, Germany, UK, Russia, India, China) and others with important qualities (Brazil, Sweden, Norway, Korea, Taiwan, Canada, Netherlands, Austria, Greece, New Zealand, Lithuania, and the international). The projects in China, India, Japan, Russia, the US, and the international case (the UN) are funded by a National Science Foundation (NSF) grant to Jeffrey Broadbent, the principal investigator (PI) and leader for the entire project (NSF 0827006; budget \$589,539 for the international, China, India, Russia, and Japan cases; \$130,373 for the US case). Other cases have their own sources of funding.

Professor Broadbent coordinates planning, research, and scientific communication efforts for this global research project through biweekly telephone conferences; scientific papers, panel discussions, and meetings at major conferences; and correspondence. He monitors the budget for the NSF-funded projects and will oversee the central office for data analysis for the entire project. His NSF, along with funding the five cases, provides for a research assistant (50% time) at the University of Minnesota. He will also oversee the RA for development of the public website.

The Compton project will repeat the survey at 5-to-7 year intervals, to provide time-series data on changing patterns of national and international reactions as the effects of climate change intensify. The data sets will be put into the public domain for use by scholars worldwide. Compton research teams will be encouraged to establish research centers to continue the social scientific investigation of climate change. The teams and centers will establish a network of pedagogy and opportunities for students and researchers. The intent is to establish a monitoring facility like those that monitor the global atmosphere, but for analyzing and reporting on changes in societal responses to climate change.

The proposed public web site is intended to enable the Compon project, plus relevant data and analyses in user-friendly forms, support global and national efforts to mitigate the causes of climate change by establishing the needed institutions for earth systems governance {Biermann 2007}. *We seek funding to hire a research assistant to help design and construct this public website to re-configure the data and analyses on social dimensions of climate change from the Compon research teams into language and web interfaces readily accessible to the public and decision-makers worldwide.*

How this research represents an innovative contribution to interdisciplinary work on health, environment or the life sciences.

The proposed website will contribute to local, national, and global transformation by distributing knowledge about possible pathways for adopting carbon-neutral social organization and the relative success of different nations, treaties, and policy mechanisms in pioneering these pathways. The term *social* refers to all institutional and collective activities in society: political, economic, cultural, and social relational and their complex interactions. Worldwide, social reactions to climate change entail all these aspects in different mixtures and forms. Understanding how these complex interactions bear upon mitigating climate change is the task of the Compon project. As the crisis intensifies and demands global action, such understanding will become vital to forging workable agreements. A comprehensive website on the social dimensions of climate change will provide insights and information about these different aspects and their interactions to bear upon the causes of and solutions to the global problem of climate change.

Various websites offer natural scientific and demographic information on global climate change; a few offer related social information (for instance http://earthtrends.wri.org/searchable_db/index.php?theme=3). But they do not cover societal opinion-formation and decision-making *processes* and how they shape national climate change policies and emissions trends. Yet these processes determine the speed and effectiveness with which society copes with global climate change.

The proposed public website will provide hard-to-find information about the social dynamics and governance processes concerning climate change at international, national/area, and even state and local levels. The site will cover the major GHG-emitting nations, and other nations that are coping with climate-related problems or have developed exemplary emissions reductions programs. The project scope will expand as additional national research teams join the Compon project. The website will also cover the formation processes of international agreements, such as the emerging post-Kyoto regime and its reception by and interaction with the relevant countries. Initial information will be collected as part of the Compon project by the research teams, while other relevant I on E research projects will gradually become

involved. The site will use advanced imaging to depict the data through network visualization techniques linked to the project's network research methods. This public site will develop:

1. Coverage of social reaction and policy formation dynamics and processes at all levels in the global system.
2. Descriptions of all organizational actors relevant to climate change and their activities and policy stances.
2. Descriptions of policy-making events and dynamics at all levels (including emergent changes in behavior of non-governmental entities such as businesses and consumers) that bear upon climate change and GHG emissions.
4. Analyses and depictions of the fields of discourse, attitudes and opinions among relevant organizational actors in both indigenous meaningful terms and in international terms and concepts
5. Analyses of different networks among actors in the national formation of climate change policies and reactions.
6. Analyses and graphs of trends in media coverage of climate change at national levels.
7. Analyses of effects of national background factors such as climate disaster vulnerability, resource endowments, and global trade positions on policy formation in each country.
8. Analyses of the productivity, credibility, and legitimacy of national climate change research capacities and institutions as they affect policy formation.
9. Data and analyses of trends in public opinion about climate change in each country (the Compon project gathers public opinion data from other sources such as the Euro-barometer and other surveys).
10. Details on all national and corporate policies relevant to climate change and GHG emissions and their implementation success.
11. Transcripts and analyses of interviews with national and international experts on climate change politics and social dynamics.
12. Data from other research projects on the social dynamics of climate change research sponsored by the Institute on the Environment and others.
13. Gradual expansion of the website to include information and research results from projects on *adaptation* to climate change, such as population migrations forced by climate change

disasters, disease control efforts for disease vector spread, responses to social disasters caused by drought or other climate variations.

14. Integration with GIS and other spatial mapping technologies to contextualize the climate change mitigation and adaptation information.

Work plan for research assistant with specific timeline

The website research assistant will build the structure of the website and transfer information from the Compon research teams and other sources. The project research assistant will bring this information into the project side (not open to public) of the website, while the public-website research assistant will filter and reconstruct the information to make it accessible to the general public and leaders worldwide.

Fall, 2009.

September: Learn Drupal interactive website platform software being used by the IonE/Compon website.

October: Work with RA Jasmine Harris and other experts in website production to design the public website using the most interactive and up to date interfaces and technologies for the purpose.

November: Implement and construct the basic website design on the University server linked with and as the public face of the researchers-only Compon project website and for other social research coming from the Institute on the Environment.

December: Implement all public introductory materials and categories on the website concerning research on the social dimensions of climate change and relevant research methods and procedures appropriately explained.

Spring 2010.

January: Set up country/area/international pages within the website and edit and post the country reports from the research teams (later versions of their reports developed for the Compon panels at the April 2009 meetings of the International Human Dimensions Program in Global Environmental Change (IHDP), <http://www.openmeeting2009.org/papers-demographics.html> (bottom of page). Also collect and post other relevant information on each case and provide links for same (Points 1 through 3).

February: Present qualitative research results from first year of Compon project (April 2009 to March 2010) concerning media trends and interpretation, and other aspects (points 4 through 12 above).

March: Present qualitative research results from first year of Compon project (April 2009 to March 2010) concerning media trends and interpretation, and other aspects (points 4 through 12 above).

April: Build in needed software connections for interactive presentation of network and spatial visualization data.

May: Begin presentation of network data from Compon research teams and expansion of site to include other project and information and research on adaptation as well as mitigation (Points 13 through 16).

Brief biography of project leader

The PI leader, Jeffrey Broadbent, is an Associate Professor in the University of Minnesota's Sociology Department. His research has focused on comparative policy networks, with an emphasis on environmental politics, particularly on the recognition of and policy responses to environmental problems. Fluent in Japanese and deeply knowledgeable about Japanese policy formation, he focuses his current research on the Japanese response to climate change, but has long studied the role of social capital networks in environmental and labor politics and policies in Japan and other countries. As PI, he has recruited and organized the research teams to use cross-national comparative social analysis to identify the factors needed to develop effective climate change policies.

Jeffrey Broadbent graduated with the B.A. in Religious Studies—Japanese Buddhism (phi beta kappa, cum laude) from the University of California at Berkeley in 1974. He received the M.A. degree in Regional Studies-Japan from Harvard University in 1975 with on thesis on peasant movements during the Tokugawa Period in Japan. Entering the Harvard University Department of Sociology in 1975, he focused on the fields of environmental sociology, social movements and political sociology. For his thesis research, he conducted field work (1978-81) on the local political contest surrounding a proposed heavy industrial development site, between advocates of economic growth and opponents of environmental pollution. Receiving the PhD degree in 1982, he then spent three years at the University of Michigan, Ann Arbor, as a Junior Fellow of the Society of Fellows (with concomitant appointments as assistant professor in the Department Sociology and research scientist at the Center for Japanese Studies). In 1986, he became assistant professor in the Department of Sociology, University of Minnesota and has continued there to the present. He has published books, articles and chapters and participated in several international research projects, including as PI of the Japan case for the project that eventuated in co-authored *Comparing Policy Networks: Labor Politics in the United States, Germany and Japan* (Cambridge University Press, 1996). His sole-authored book *Environmental Politics in Japan: Networks of Power and Protest* (Cambridge University Press, 1998) received

the 2000 Distinguished Publication Award from the Environment and Technology Section of the American Sociological Association and also the 2001 Ohira Masayoshi Memorial Prize from the Ohira Foundation in Japan. His co-edited book, *East Asian Social Movements: Breaking the Mold*, will be published in summer, 2009. He has received three Fulbright Awards, three grants from the National Science Foundation, an Abe Fellowship, and other forms of recognition. He is now conducting a multi-country study of the factors influencing variation in national response to global climate change with funding from the National Science Foundation.

Consortium on Law and Values in Health, Environment the Life Sciences
Budget for Consortium or JDP Member Proposals

Project Title: Development of a Public Use Website on the Social Dynamics of Global Climate Change

Instructions: add rows for multiple personnel.

Category	Description & justification	Requested funding	Matching/other funding	
		Amount	Amount	Source
Personnel <i>Explain what hourly wage & fringe are based on-- departmental, community or other rate?UM EGMS according to grants specialist Barbara Murdoch murdo004@umn.edu</i>	Salary @ 50% time. \$18.85/hour x 780 hours	\$14,703		
	Fringe benefits @ 16.84%	\$2,475		
	Tuition benefit @ \$13.32/hour x 780 hours	\$10,389		
	Description & justification: development of public use website on social dynamics of climate change			
	Subtotal	\$27,767		
	__ speakers x \$ ____ honorarium			
Supplies & Services	List items and explain use.			
Equipment <i>Equipment costs are allowable only if the justification clearly shows that the equipment is necessary for the project. Include explanation of what will happen to equipment at completion of project.</i>	Identify and explain use.			
Travel <i>Travel costs must include a description of the purpose of the travel, start and stop dates of travel, transportation costs, housing costs, and allowable per diem (use University rates found at http://travel/umn.edu).</i>	Explain.			
	Subtotal research supplies, equipment, travel, other			
TOTAL BUDGET		\$27,566		

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