

## **BARBARA HAYA, PhD**

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[Research Fellow, Center for Environmental Public Policy](#)

[Research Fellow, California Institute for Energy and Environment](#)

## **EDUCATION**

**PhD, University of California, Berkeley**, in Energy & Resources, 2010

Dissertation title: [Carbon Offsetting: An Efficient Way to Reduce Emissions or to Avoid Reducing Emissions? An Investigation and Analysis of Offsetting Design and Practice in India and China](#)

**MS, University of California, Berkeley**, in Energy & Resources, 2002

Thesis title: Evaluation of World Bank Public Participation Policies – Lessons for the Clean Development Mechanism

**BA, Villanova University**, major in Philosophy, concentration in Physics, 1991

## **RESEARCH INTERESTS**

Effective and equitable domestic and international climate change policy. My work has focused on California's global warming law, international climate change agreements, carbon offsetting, carbon trading, sectoral crediting, renewable energy policy, and the Indian power sector.

## **RESEARCH & WORK EXPERIENCE**

**California Institute for Energy and Environment**, Research Fellow, University of California, Berkeley (Summer 2015-Present)

Working with the University of California to develop the system's strategy for procuring carbon offsets for use towards meeting the system's carbon neutrality goals.

**Center for Environmental Public Policy**, Research Fellow, Goldman School of Public Policy, University of California, Berkeley (March 2018-present)

Leading the Berkeley Carbon Trading Project, a coordinated research and policy outreach program currently focused on the effectiveness of California's carbon offset program.

**Consultant on Climate and Renewable Energy Policy**, Oakland, CA (January 2015-February 2018)

Consulted on carbon offsets and California climate policy for a range of organizations.

**Stanford Law School**, Research Fellow, Stanford, CA (Spring 2013-Spring 2015)

Led an interdisciplinary team of law and PhD students in a coordinated research and policy engagement program on California's expanding carbon offset program. Our goal was to support the development of an offsets program that effectively reduces emissions, and only credits emissions reductions that are real, additional, verifiable, and conservatively estimated. Our work focused on two new carbon offset protocols developed by California: Mine Methane Capture and Rice Cultivation.

**Union of Concerned Scientists**, Consultant, Berkeley, CA (Spring 2011-Spring 2013)

- Researched and advocated for procedures under California's global warming law for evaluating new and existing offsets protocols and overseeing the report verification process, to ensure carbon credits generated have a high likelihood of representing real and additional emissions reductions.

- Co-authored report analyzing the performance of California's publicly owned utilities towards meeting the state's 2010 Renewables Portfolio Standard

**Lawrence Berkeley National Lab – China Energy Group**, Graduate Student Researcher

Berkeley, CA (Spring 2010)

Analyzed the design of a sectoral crediting program that would support improved efficiency in the cement sector in Shandong province in China and credit emissions reductions from those support efforts.

**International Rivers**, Consultant, Berkeley, CA (2002-2009)

- Led the drafting of four position papers on the Clean Development Mechanism (CDM, the Kyoto Protocol's carbon offset program) by consensus among Climate Action Network (CAN) member organizations as coordinator of the CAN Flexible Mechanisms working group. CAN coordinates the efforts of 500+ NGOs at the international climate change negotiations.
- Submitted analysis and recommendations to the CDM Executive Board on the functioning of the CDM and CDM reform.
- Submitted comments on proposed CDM baseline and monitoring methodologies and hydropower projects applying for CDM registration.
- Traveled to Tehri, India to document the state of rehabilitation of communities displaced by Tehri dam.

## PEER-REVIEWED PUBLICATIONS & WORKING PAPERS

Barbara Haya, Danny Cullenward, Aaron L. Strong, Emily Grubert, Robert Heilmayr, Deborah Sivas, Michael Wara (2020) Managing Uncertainty in Carbon Offsets: Insights from California's Standardized Approach. *Climate Policy*, DOI: 10.1080/14693062.2020.1781035

Barbara Haya (2019) [Policy Brief: The California Air Resources Board's U.S. Forest offset protocol underestimates leakage](#). Goldman School of Public Policy Working Paper, University of California, Berkeley

Barbara Haya, Aaron Strong, Emily Grubert, Danny Cullenward (2016) Carbon Offsets in California: [Science in the Policy Development Process](#). In *New Trends in Communicating Risk and Resiliency: A Multi-Disciplinary Approach to Global Environmental Change*, eds. J. Eichelberger, K. Taylor & Y. Kontar. Springer

Barbara Haya & Payal Parekh (2011) [Hydropower in the CDM: Examining Additionality and Criteria for Sustainability](#). Energy & Resources Group Working Paper ERG11-01, University of California, Berkeley

Barbara Haya (2009) [Measuring Emissions Against an Alternative Future: Fundamental Flaws in the Structure of the Kyoto Protocol's Clean Development Mechanism](#). Energy & Resources Group Working Paper ERG09-01, University of California, Berkeley

Barbara Haya, Malini Ranganathan, Sujit Kirpekar (2009) [Barriers to sugar mill cogeneration in India: insights into the structure of post-2012 climate financing instruments](#). *Climate and Development* 1:66-81

Lara M. Kueppers, Paul Baer, John Harte, Barbara Haya, Laura E. Koteen, and Molly E. Smith (2003) [A decision matrix approach to evaluating the impacts of land-use activities undertaken to mitigate climate change](#). *Climatic Change*, 63:247-257

Paul Baer, John Harte, Barbara Haya, Antonia V. Herzog, John Holdren, Nathan E. Hultman, Daniel M. Kammen, Richard B. Norgaard, Leigh Raymond (2000) [Equity and Greenhouse Gas Responsibility](#). *Science*, 289:2287

## OTHER PUBLICATIONS

- Thomas Damassa, Taryn Fransen, Mengpin Ge, Krisztina Pjeczka, Barbara Haya and Katie Ross (2015) [Interpreting INDCs: Assessing Transparency of Post-2020 Greenhouse Gas Emissions Targets for 8 Top-Emitting Economies](#). World Resources Institute, Washington, DC
- Laura Wisland and Barbara Haya (2012) [The Clean Energy Race: How Do California's Public Utilities Measure Up?](#) Union of Concerned Scientists, Berkeley
- Alexander E. Farrell, Daniel Sperling, et al, (2007) A low carbon fuel standard for California, [Part I: Technical Analysis](#) & [Part II: Policy Analysis](#). UC Berkeley Transportation Sustainability Research Center
- Barbara Haya (2007) [Failed Mechanism: How the CDM is subsidizing hydro developers and harming the Kyoto Protocol](#). International Rivers, Berkeley

## PROJECTS & INTERNSHIPS

### **UC Berkeley, Graduate Student Researcher – California's Low Carbon Fuel Standard**

Berkeley, CA (Spring 2007)

Worked in a team of University of California researchers to analyze policy design options for California's Low Carbon Fuel Standard adopted to lower the emissions intensity of California transportation fuels. This team effort produced a two-part study that guided the state's design and implementation of its fuels policy.

### **The Energy and Resources Institute (TERI), Fulbright Scholar, New Delhi (Summer-Fall 2006)**

Analyzed the role of the CDM in supporting low carbon development in India and developed policy recommendations for reforming the program.

### **Lawrence Berkeley National Lab, Graduate Student Researcher, Berkeley, CA (2003-2004)**

Helped develop and test ProForm, an Excel-based software program for evaluating the financial and carbon returns of clean energy projects.

### **UC Berkeley, Graduate Student Instructor, Berkeley, CA (Fall 2003)**

Assisted in teaching an upper division undergraduate lecture course, International Environmental Politics.

### **World Resources Institute, Intern, Washington, DC (Summer-Fall 2002)**

Co-authored paper and co-created associated Excel-based tool examining indicators for countries' responsibility for causing, and capability for mitigating, climate change.

### **Natural Resources Defense Council, Intern, Washington, DC (Fall 2002)**

Researched various topics on domestic climate change-related policies.

### **Winrock International, Kathmandu, Nepal (Summer 2001)**

Developed PCF, GEF and CDM proposals for selling carbon reduction credits from clean energy and transportation projects in Nepal.

### **Pelangi, Jakarta, Indonesia (Summer 2000)**

Performed interview-based research to understand how stakeholders have influenced power sector restructuring in Indonesia towards social and environmental goals.

### **Lawrence Berkeley National Lab, Researcher, Berkeley, CA (1998-1999)**

Developed plan for reducing electricity use in City of San Francisco office buildings.

**Mediware Information Systems**, Scotts Valley, CA (1997-1999)

Database Software Engineer

## **PROFESSIONAL SERVICE**

- Member of the Board of Directors, Carbon Market Watch, an NGO monitoring outcomes and development of carbon trading programs under UN agreements and around the world.
- Observer, seven Conferences of the Parties to the UN Framework Convention on Climate Change (the annual international climate change negotiations).
- Reviewed manuscripts for Climatic Change, Climate Policy, Energy Policy and Carbon Management.