COLUMBIA UNIVERSITY
Graduate School of Arts and Sciences

Master of Arts Program in
Climate and Society

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Associate Director: Mingfang Ting
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Training Professionals who understand the links between Climate and Society

- Background
- Curriculum
- Alumni
Background

• Climate and Society Master’s program began Fall 2004
• Recognized the need for professionals who understand science of climate change and it’s far reaching societal impacts
• Grew out of training programs at the International Research Institute for Climate and Society
International Research Institute for Climate and Society (IRI)

- IRI is part of The Earth Institute at Columbia University
- Projects and research focus on reducing societal vulnerability to climate variability
- IRI works on regionally based problems in developing countries with projects in Africa, Asia and the Pacific, Latin America and the Caribbean
- Many students in the Climate and Society program work with IRI scientists during the year and most of the core faculty are scientists at IRI
Student Backgrounds

- Students come into the program from a wide variety of backgrounds
  - Engineering (Environmental, Mechanical, Computer)
  - Environmental Sciences (Geology, Atmospheric Science, Oceanography)
  - Environmental Studies
  - Public Health
  - Mathematics
  - Physics
  - Political Science
  - Economics
  - Finance
  - International Affairs

Class of 2008 - 2009 snapshot
- 40 incoming students
- 40% from a social science background
- 60% from natural science background
- Students are from all over the world including: Pakistan, Canada, Ireland, China, India, Japan, Trinidad & Tabago, Taiwan, USA, Ethiopia
- 2 full scholarship students from the developing world

Kuena Morebotsane, MSST Scholarship ‘06
Curriculum

- Interdisciplinary curriculum, allows flexibility with electives

- Rigorous twelve-month design (September - August)

- Gives students a sound basis in climate science

- Students tailor program to suit their particular needs and interests

- Part of the Department of Earth and Environmental Sciences in the Graduate School of Arts and Sciences; and part of the Earth Institute, and International Research Institute for Climate and Society (IRI) communities.
<table>
<thead>
<tr>
<th>Fall Semester</th>
<th>Spring Semester</th>
<th>Summer Semester</th>
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<tbody>
<tr>
<td>Dynamics of Climate Variability and Change</td>
<td>Regional dynamics, climate, climate impacts</td>
<td>Research or Policy Internship or Thesis</td>
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<td>Quantitative models of climate-sensitive natural and human systems (4pts)</td>
<td>Seminar: Managing and Adapting to Climate</td>
<td>Summer Seminar</td>
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<td>General Elective</td>
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<td>Social Science Elective</td>
<td>General Elective</td>
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<td>Professional Development Seminar (1pt)</td>
<td>General Elective</td>
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<td>14 points</td>
<td>15 points</td>
<td>6 points</td>
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Electives

Electives make the program broadly interdisciplinary

- Program electives are taken across campus in:
  - The Graduate School of Arts and Sciences
  - School of International and Public Affairs
  - Mailman School of Public Health
  - Fu Foundation School of Engineering

Examples of Electives:
- Geographic Information Systems (GIS) for Resource, Environment, and Infrastructure Management
- Environmental Politics and Policy
- Economics of the Environment
- Alternative Energy Resources
- Management and Development of Water Systems
- Managing Risks of Natural and Other Disasters
- Public Health Impacts of Climate Change
- Epidemiology of Malaria

Daniel Ruiz Carrascal, Full Scholarship ‘07
Summer Internships/Theses Projects

- The Summer Internships have been a very successful part of the Climate and Society program. Students have worked in organizations including:
  - The Climate Group
  - NY State Department of Environmental Conservation
  - Rainforest Coalition
  - UN Energy Programme Post Conflict and Disaster Management Branch
  - Trickle Up (Microfinance)
  - IRI/International Federation of the Red Cross
  - Clean Ocean and Shore Trust
  - Sustainable Energy Solutions

- Thesis projects have included:
  - Improving Resilience and Sustainability of Infrastructures in preparation for climate change and environmental impacts (in progress)
  - The social justice of weather: Hurricane risk management for development in Latin America
Alumni

- Including CS Class of ‘08, the program has 51 alumni

- Policy administrators in water resource management, agriculture, health, tourism, and economics, especially in the developing world

- Policy professionals pursuing strategies in sustainable development

- Private-sector professionals dealing with risk and decisions relating to environmental change

- Educators

- Interdisciplinary environmental action or research
Alumni Professional Routes

Upon completion of the program students have found opportunities in public, nonprofit and private organizations such as:

- United Nations: Women’s Global Green Action Network, Program Director
- International Research Institute for Climate and Society (IRI), Staff Associate
- UNDP Global Village Energy Partnership
- Pew Center on Global Climate Change, Researcher
- The Climate Group, Researcher
- National Meteorological Agency in Ethiopia, Meteorologist
- Harlem Success Academy, Developing Climate Science Curriculum for young children
- British Embassy in Washington, D.C., Climate Change Advisor
- Asian Disaster Preparedness Center, Climate Risk Management Coordinator
- Food and Agriculture Organization’s Global Environment Facility Coordination Unit
- Irwin Engineers, Chemical and Environmental Engineer
- California Climate Action Registry, Policy Associate
- Green Reviews, Inc., LEED consultant
- ICLEI Local Governments for Sustainability, Program Officer
A number of former students have also continued to pursue academic training in a range of PhD programs at institutions such as:

- Michigan State University, Geography
- Rutgers University, Geography
- University of Miami Rosenstiel School of Marine and Atmosphere Science, Interdisciplinary Climate Studies
- UCLA, Joint African Studies and Public Health
- Massachusetts Institute of Technology (MIT), Atmospheric Physics
- Columbia University, Earth and Environmental Sciences
- UC Irvine, Political Science
- UC Berkeley, Energy Resources Group
- Columbia University, Environmental Engineering
- Columbia University, Earth and Environmental Science
- University of Arizona, Sustainable Development
- San Diego State University/UC Santa Barbara Joint Program, Geography
MA Climate and Society Class of 2008
Master of Arts Program in
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