

Navigating conflict: Diverging stakeholder interests in a warming world

1 hr. 50 minutes, once weekly

3 Credits

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Office Hours: 1 hour, before and one hour after class, location TBD. Any time by appointment, on Zoom.

Response Policy: Available via e-mail 24/7. Will respond within 24 hours. Can be reached via cell phone for anything urgent.

Facilitator/Teaching Assistant: None

Course Overview

This course will explore ways in which the shifting relationship between the human economy and our physical environment drive divergent, often conflicting, responses from different segments of society, including distinct economic classes, communities, nations, industries, etc. For the sustainability professional, such conflicts are important in the development of equitable solutions. They are also critical pragmatic issues in implementation of any new policies. The relative strength of different stakeholders, and the tactics they deploy to pursue their goals can determine what actually happens “on the ground”. We will take a case study approach, looking at how specific socio-economic impacts of environmental change generate calls for social change, shift alignments, deepen stakeholder entrenchment, and influence sustainability policy. Our cases include impacts of global warming, land-use changes, and expanded material throughputs as a result of growing demand in agriculture, fishing, forestry, mining and manufacturing.

The course starts with some introductory material which is expected to provoke conversations about how environmental change may cause conflict, how sustainability professionals might conceptualize those conflicts, how potential solutions can exacerbate tensions, and some discussion of what it might mean to navigate such troubled waters. Then I will present 4 cases: oil exploration in the Arctic, deforestation in Indonesia, wind farming in Mexico, and uranium mining in Gambia and the American southwest, taking about 2 weeks on each case. In the Arctic and Mexican cases, the underlying driver is climate change. In Gambia and the Navajo reservation, we look back over several timescales, from decades to billions of years, to explore connections between earth evolution, colonialism and environmental justice. In Indonesia, it is the expansion of global markets and the plantation model to modern production in tropical forests.

As we work through the cases, I will give several ‘mini’ lectures, raising questions central to environmental conflicts:

- What are differential impacts of environmental change? ... and how do these shift power relations?
- How do we allocate responsibility across nations and classes; and how does responsibility differ between production-based and consumption-based allocation?
- How can one translate between capital (economic) flows and environmental impacts?
- Can we grow our way through these conflicts with a Green New Deal?
- How do 'planetary boundaries' translate to specific conflicts, and what limits do they place on sustainable resolutions?
- Finally: how is managing uncertainty in a rapidly-changing world different from traditional risk/benefit calculus, and why is conflict resolution in the context of the current crises inherently difficult?

Most of the class time, we will be engaged in discussion. I will prompt you to consider your potential role, as a sustainability professional, researcher, or 'stakeholder' in these conflicts. The classroom will be a safe space for dialogue, in which all thoughts, musings, proposals, and points of view are welcome.

Each student will develop a case study as a term project. You will be encouraged (though not required) to team with one or two partners. Projects will be delivered as either a PowerPoint deck or a video (or both), along with an oral presentation to the class. I will be available to work with you on your projects, from concept to presentation.

Each week you will be responsible for a written reflection on the class. I'm interested in an honest telling of your response to the material and/or to our joint discussion of it. In the past, students have used this as an opportunity for: a 'life writing' piece, describing how your own history entangles with these topics; detailing your point of view on the topics; critiquing the dialogue, or my pedagogical practice; and stating your own position vis-à-vis the conflicts. All of these and more are fair game. The writing needs to be cogent, on point to the class dialogue that week, and between two and five pages long.

'My' case studies:

It is often said that, "Society lacks political will" to implement effective climate policy. However, a closer look indicates that it may be more accurate to say that strong, but conflicting, interests have delayed climate action. Similarly, it is commonplace for scientists to say things like, "Society often deliberately chooses low-diversity options ... because these can be managed efficiently." (Chapin, et al., 2009), a statement that assumes a unitary "society" making choices based on a shared understanding of "efficiently" managed. However, environmental costs often accrue to one social group while the benefits of new opportunities reach another. In such cases, relative positions of power and control of resources can drive implementation choices. From a sustainability perspective, policy can then be badly distorted.

We will begin the course with some readings that provide a broad view of environmental conflicts and a theoretical framework within which to understand the role of conflict in determining what can be implemented "on the ground" (i.e.: in specific real-world contexts). Then we will dig into four scenes of

ongoing struggle. The readings represent a breadth of perspectives on these conflicts, including the voices of those engaged locally. Our first goal will be to understand the developments from the perspective of the stakeholders. Then, we will try to think critically about what useful roles there are for professionals such as ourselves in exposing, and perhaps advocating for, the most sustainable and equitable possibilities.

Warming in the **Arctic** region has been about 3 times the global average, and recent winters have seen open water as far north as the Pole. With about 25% of the planet's unexploited oil and gas resources, some of the planet's most sensitive ecosystems, and a history of semi-autonomous governance arrangements, the Arctic is already seeing heightened tensions. Examples include:

- Conflict between nations that are more cautious about pollution associated with oil exploration (e.g.: Norway) and those that prioritize rapid expansion of offshore oil drilling (e.g.: Russia) – made more intense by the fact that as the Arctic warms, transport of ice-rafted pollutants between nations is increasing.
- Conflict between indigenous people who see oil and gas production as a threat to traditional cultures, including the Arctic ecosystem, and those who see it as a way to escape rural poverty – a conflict accentuated by the retreat of sea ice, which opens the continental shelves to off-shore drilling.
- Conflict between impacted poor and working class communities that cannot afford expensive adaptations to a warmer world and fossil fuel industry groups that lobby against action to mitigate or adapt to climate change – a conflict sharpened in the Arctic where whole villages are eroding away and broad stretches of the tundra melt.

We will focus on the concrete (and still unresolved) issue of drilling in the American Arctic Ocean, beginning with the words of native Alaskans, who are both at the tip of the spear of climate change, and potential beneficiaries of enormous royalties from offshore drilling. We will expand from there to the broader questions of how decarbonization policy is entangled with environmental justice conflicts.

The mountainous backbone of the Isthmus of **Tehuantepec**, in **southern Mexico**, funnels the trade winds into one of the most consistently windy corridors on earth. Central to Mexico's green development strategy is to use wind power to reduce dependence on fossil fuels, and one of the world's largest collection of wind farms has sprung up in and around Tehuantepec. However, implementation has been slowed by strong, sometimes violent, grassroots resistance from local and indigenous communities. We will start with the geography of the isthmus and the physical potential of the area; move on to the prior local economy and some of the basic political realities; and finally read about the conflict from two or three distinct perspectives.

As the material throughflow of the global economy continues to grow, **deforestation** is a growing sustainability challenge. In **Indonesia**, where **oil palm plantations** are expanding into forests that previously hosted diverse mixtures of cultivated and feral ecologies. We will briefly review the history of oil palm plantations, and government policies that have facilitated the transfer of vast tracts of 'customary' landholdings to corporate plantations. Then we will focus on reactions from local and indigenous landholders, plantation laborers (many of who are migrants), and frontline managers. We will discuss resistance to the transfer of lands, construction of plantations, and corporate labor policy, and responses to the ensuing conflicts from a range of stakeholders. The well-documented responses of international groups, including environmentalists and sustainability professionals, will be discussed in a critical frame.

Finally, **Nuclear power** is considered by many to be a (relatively) clean pathway to decarbonization. A lot has been said about the downstream issues of waste disposal and proliferation. So we will look upstream, to uranium mining. We start with a short introduction to the geochemistry of uranium and uranium mines, and then trace the troubled history of uranium in two disparate locations united by colonial occupation and environmental poisons: the Oklo mines in Gabon and mines on Navajo lands in the American southwest. This case study spans broad spatial and temporal scales, linking local conflicts over safety, health and wellbeing, with legacies of the Cold War, with the relationship between colonialism and extractivism. We will even touch on the Earth's history, and the formation of critical mineral deposits. This case, fascinating for its own merits, will also serve as a window into the rapid growth of mineral extraction worldwide, the conflicts with which extractivism is entangled, and how sustainable resolutions might (or might not) emerge.

The course will follow a graduate seminar style. Each case study will begin with a presentation and literature discussion exploring the underlying science and summarizing the existing policy situation. Any questions raised by the readings will be discussed. Then students will explore stakeholder voices, and their own thoughts about how to navigate towards useful solutions.

'Your' Case Studies:

The last 5 weeks of the course will be focused on student-presented case studies. In the first two weeks you will have to form into small teams (2 or 3 students) and select a general area that you want to investigate. I will work with each team to refine your case into something that is tractable as a semester project. The range of possible projects is as large as planet Earth.

Course Requirements (Assignments)

Class participation: 30%

Students must keep up with the assigned readings. 25% of the grade will be tied to class participation, including argumentation, which must be science- and fact-based, reflecting the content of the readings.

Reflections. 35%

Each week each student will submit a reflection on the week's discussion and/or readings. I'm interested in an honest telling of your response to the material and our discussion of it. In the past, students have used this as an opportunity for: a 'life writing' piece, describing how your own history entangles with these topics; detailing your own point of view on the topics; critiquing the dialogue, or my pedagogical practice; espousing a political stance re. the conflicts. All of these and more are fair game. The writing needs to be cogent, on point to the class dialogue that week, and less than 1500 words long.

Final Project. 35%

There will be an independent project, due at the end of the course, which can take the form of a PowerPoint presentation, written paper, or a video presentation (or a combination), applying the analytic techniques of the course to a situation not covered in class. The project will be graded on the extent to which the student can:

- identify the major stakeholder groups impacting an area of policy related to sustainability;
- explain what means each group has to impact policy;
- describe efforts to date by each group to have its voice heard and its needs addressed;
- discuss how ongoing environmental (including climate) change is likely to impact stakeholders' positions and their prospects for influencing policy choices.

If you choose to write a paper, the target length should be 12 pages (11 or 12 point type; double spaced; 1" margins), plus references and figures.

If you choose to create a video presentation, the target length should be 15 minutes, and not more than 20 minutes.

Role-plays are an acceptable form of presentation. Drafting the class as participants ... likewise.

acknowledge the circumstances, ideas, sources, and assistance upon which that work is based. Academic honesty in class assignments and exams is expected of all students at all times.

SPS holds each member of its community responsible for understanding and abiding by the SPS Academic Integrity and Community Standards posted at <http://sps.columbia.edu/student-life-and-alumni-relations/academic-integrity-and-community-standards>. You are required to read these standards within the first few days of class. Ignorance of the School's policy concerning academic dishonesty shall not be a defense in any disciplinary proceedings.

Accessibility

Columbia is committed to providing equal access to qualified students with documented disabilities. A student's disability status and reasonable accommodations are individually determined based upon disability documentation and related information gathered through the intake process. For more information regarding this service, please visit the University's Health Services website: <http://health.columbia.edu/services/ods/support>.

Course Schedule/Course and Readings:

Readings will combine academic literature on environmental conflict; journalistic coverage of current controversies; academic literature on climatic changes and extractivism; and literature on policy process (governance). All readings will be provided as pdf files by the instructor. They will be available on CourseWorks, organized by the week they will be discussed. Some short documentary videos will be included as well.

The final grade will be calculated as described below:

FINAL GRADING SCALE

Grade	Percentage
A+	98–100 %
A	93–97.9 %
A-	90–92.9 %
B+	87–89.9 %
B	83–86.9 %
B-	80–82.9 %
C+	77–79.9 %
C	73–76.9 %
C-	70–72.9 %
D	60–69.9 %
F	59.9% and below

ASSIGNMENT

Classroom participation

Summative reviews of case studies

Final project

Course Policies:

The classroom and your weekly reflections constitute a safe academic space in which wide-ranging dialogue is encouraged. We will all treat each other with respect and care. Mistakes, missteps, and novel perspectives will be treasured. We will criticize each other's positions and receive critiques of our positions with open hearts. Our goal will be to learn as much as possible, which will require all of us to acknowledge how little we know.

School Policies:

Copyright Policy

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Academic Integrity

Columbia University expects its students to act with honesty and propriety at all times and to respect the rights of others. It is fundamental University policy that academic dishonesty in any guise or personal conduct of any sort that disrupts the life of the University or denigrates or endangers members of the University community is unacceptable and will be dealt with severely. It is essential to the academic integrity and vitality of this community that individuals do their own work and properly.