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DAVID HSU: This is another lecture installment in the Urban Energy Systems and Policy class at MIT. My name is David Hsu. I'm a Professor of Urban studies and Planning. And today, we're going to talk about cities and a just energy transition.

What is a just energy transition going to look like? What does it mean for us to try to achieve a just or equitable energy transition?

The readings for today are listed on the slide. A lot of this lecture will be setting up our discussion in class of these readings. It will be a fairly short lecture today. I think that's going to be the best way to set up discussion. And, hopefully, we have a lively discussion in class.

Let me just start with a few stories to supplement the reading. I want to start with this rather hale-looking fellow, President Theodore Roosevelt. He's the 26th president of the United States. He is known in his lifetime as a soldier; a naturalist; a writer; a politician, reformer, and imperialist. He does all this despite being a Harvard graduate. But I would think what's most relevant about his political career is that also he's known as a progressive, a turn-of-the-century progressive, suspicious of big corporations, a trust-buster, reform-minded, in favor of clean and strong government action and intervention into the economy.

That's why he's become quite relevant. The Roosevelt Institute is one of our most progressive economic think tanks.

He's also, for the purposes of our class, known as a conservationist. He's strongly associated with the US National Park System. There's a quote from Wallace Stegner, a noted environmental writer. He calls the national parks, one of "the best ideas we ever had. Absolutely American, absolutely democratic, they reflect us at our best rather than our worst." Of course, I put the asterisks on the National Park System because, as many people have noted throughout history, and more recently, a lot of the National Park System is also land appropriated from Indigenous peoples of the United States.

But also relevant for our discussion today, Theodore Roosevelt has fairly troubling racial beliefs, even for his time. One could argue that he was in favor of immigration, but also assimilation of immigrants into a strong American culture. One could argue that he had Booker T. Washington as a dinner guest at the White House, which was considered quite controversial at the time-- one of the first presidents to entertain a Black dinner guest at the White House. However, he's also known for essentially advocating race war against Native Americans early in his career, in his writings, and also prosecuted a Black regiment in Brownsville, Texas for mutiny, quite unjustly, according to the historical evidence.

So we have this kind of troubling history. On one hand, he's known as a conservationist. He's one of our more scholarly presidents. He writes about the environment, writes about the need to conserve nature. At the same time, he also has these troubling racial beliefs.

Let me tell you another story about John Muir. John Muir was born in Scotland in 1838. He is an early naturalist writer, early environmentalist. He's considered one of the founding fathers of environmentalism because of his strong ideas about human relationships in nature, our impact on the Earth, and the preservation of the idea of wilderness. He's also closely associated with the American West, the founding of Yosemite Park, and the founding of the Sierra Club. Many of his writings on the Sierra Nevadas, leading to the founding of the Sierra Club.

He also has recently noted-- we've also recently noted his troubling racial beliefs, most notably in 2020, when the executive director of the Sierra Club, Michael Brune, apologized for his racial beliefs and racial writings. He writes early on in his career about Native Americans and Blacks as lazy. At the same time, later on, other scholars note that he writes approvingly of Native American culture as having much less impact on the Earth. Other scholars have noted that his idea of wilderness essentially assumes a pristine wilderness, in the absence of people, ignoring the presence of Indigenous peoples and cultures.

And so what I want to do by kind of just talking about these biographies a little bit is explore the idea of what is justice going to be in a climate context, do his racial writings matter, or does his idea of wilderness and preservation of wilderness also matter? How do they matter? That's something we're going to discuss in class.

Just to take one more example, Frederick Law Olmsted, Jr., was a noted journalist, writer, farmer, and abolitionist, well-known for his writings before he becomes a landscape architect. But as a landscape architect, he's fairly prolific.

Here, in Boston, he builds the Boston Common, the Public Garden, the Emerald Necklace, and the Fens. In New York, he builds Prospect Park in Brooklyn, Belle Isle Park in the Detroit River, the Biltmore Estate in North Carolina, and also designs the US Capitol grounds.

More recently, however, there has been controversy, not so much about his role, but about his most noted, perhaps, work, Central Park. Central Park at the time was well north of the city. So actually outside of New York City, which was I think largely below 34th Street. And at the time, New York state legislators basically looked at it as 700 acres of not particularly desirable landscape

Frederick Law Olmsted and his partner, Calvert Vaux, are well-known for transforming Central Park into what we know it as today. The design has largely been preserved. And they build Central Park and they write about Prospect Park as a open-air area for immigrants and people from all backgrounds to mix. They have an essentially democratic vision of what these parks are meant to do in a bustling, turn-of-the-century, rapidly changing New York City.

Of course, more recently, landscape architects and historians have unearthed or noted the presence-- that it was not actually a barren landscape, as the New York State legislator wrote about it. There were actually several small villages, notably Seneca Village, one of the few middle-class Black communities in New York City. Apparently, it also had German and Irish immigrants.

But by eminent domain, the city or the state claims the landscape of Central Park and essentially razes Seneca Village. So there's a lot more historical writing about Seneca Village recently. And the question is, does this change the legacy of Frederick Law Olmsted or should we talk about his works in a different way?

And this brings me to the last story I want to tell you. It's about Professor Robert Bullard, considered one of the leading scholars on environmental racism and environmental justice. And I think it's just a good story of how he gets involved in this topic and how he continues to write about these issues today.

There's a 2012 portrait on the left. This is a small excerpt on the right. It's a list of summary of community disputes from one of his earliest writings on environmental racism. And, essentially, lists grassroots movements throughout the South, but also the American West, where communities and neighborhoods are trying to fight back against environmental infrastructure that will be located in neighborhoods. Environmental infrastructure, like landfills, smelters, houses, waste incinerators, petrochemical refineries, that we know will probably have negative environmental or health effects on the residents.

His wife at the time is a lawyer-- or, in fact, his wife is a lawyer. And at the time, she's involved in litigation against this landfill. She asks him to get involved in the lawsuit as an expert witness and to do research on where landfills are located.

He finds that 100% of landfills in Houston are actually located in Black neighborhoods, even though only 25% of the population of Houston is Black. And so he essentially identifies this as a racial phenomenon, that these infrastructures are being located in Black communities. And he starts writing about it.

And so this is a good example-- or I think all of these stories are good examples of how we have to discuss race and justice in environmental context. The 1960s and '70s are noted for the environmental and civil rights movements. The civil rights movements, obviously typified by the civil rights leaders like Martin Luther King, Jr., or Malcolm X, or Stokely Carmichael. At the same time, we have the environmental movement, culminating in the Clean Air and Clean Water Act in 1970s.

These two movements are largely separate, typified by different people, and different leaders, and different groups. Of course, there are nascent linkages between some of these issues. The United Church of Christ Commission on Racial Justice issues a report in 1987, called *Toxic Wastes and Race in the United States.* Robert Bullard starts writing about it-- or, after this expert witness testimony in his wife's lawsuit, he writes *Dumping in Dixie,* 1990, arguing for convergence between the Civil Rights and environmental movements. And he writes about environmental justice and racism using very similar terms that we now think about those things today.

It's also really interesting in these writings how he writes very clearly that racism plays a key factor in environmental planning and decision-making. And what's really striking about his writing is that it's a very clear critique of the mainstream environmental movement, which is separate than the Civil Rights movement. He writes, "It is a fact of life in the United States that the mainstream environmental movement is only beginning to wake up to," the fact of life being racism.

But, just the same year, the EPA issues a report called "Environmental equity-- reducing risk for all communities." They very self-consciously choose the phrase "environmental equity." And they put it in terms of reducing risk for all communities. They say in the introduction that environmental equity is to study or to identify the "distribution and effects of environmental problems and the policies and processes to reduce differences in who bears environmental risks." And in just the next year, the US president, Bill Clinton, issued an executive order, in 1994, titled "Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations."

So even in this seven-year period or so, in these writings you see the idea of environmental justice essentially becoming fully normalized. Of course, we still have to understand what it means. Of course, it's also worth pointing out that environmentalists, or the mainstream environmental movement, as Robert Bullard calls it, is still quite separate from the environmental justice movement.

Here's a headline, very typical in 2020, about green groups that are grappling with a history of racism and exclusion. "The environmental movement in America has deep ties to the nation's history of systemic racism and white supremacy," this article writes. "Now, as Americans confront racial injustice anew, powerful green groups like the Sierra Club are beginning to reckon with their own histories of hate and exclusion." And so there is significant controversy within the Sierra Club itself-- Sierra Club also closely associated with the idea of conservation.

The executive director apologized for John Muir's writings about Black people and Native Americans. Other board members disagreed, and argued that the Sierra Club has a strong legacy of conservation. Of course, the question is, conservation for who?

And what's more interesting about the article-- I encourage you to either listen to it as a radio segment or read it-- is that a reporter from *The Washington Post,* Darrell Fears, started writing about green groups and their lack of diversity many years before. He said that if you go to many environmental meetings, and basically essentially see no other Black people there. And so he started writing about the homogeneity of the environmental movement then.

And so environmental justice movements are much more closely associated with grassroots movements and community groups. And the question is, how do we, perhaps, hopefully, bring these two movements together into a coalition?

And so this has spawned many different kind of conceptions. And I would argue to you that our ideas about justice, fairness, and equity, which are not necessarily the same, but often used quite interchangeably, have become crossed with energy and climate. And this is the key thing we want to discuss in class.

For example, climate justice has roots in ideas about historical responsibility and intergenerational equity. We will talk about historical responsibility and intergenerational equity, in terms of climate change, as a problem that older generations may be leaving for later or following generations. It is interesting to see how that rhetoric has perhaps diminished because climate change is here now. We all know that climate change is happening. It may no longer be a intergenerational problem. It is a problem here and now.

And so I think a more modern, I guess, way to talk about climate justice has been about its disproportionate causes and burdens, not only on our older generations, causing greenhouse gas emissions that will affect future generations in terms of climate change. We also know that rich Western or developed countries have disproportionately caused the problem. This is an argument I've made to you before. And that those burdens have been modeled or forecast to disproportionately affect the countries that are least responsible for causing climate change, like the flooding happening in Pakistan, like hurricanes and typhoons hitting Mozambique.

At the same time, climate justice has become a more important phrase or idea because of the rise of grassroots movements, like Fridays for the Future or Extinction Rebellion. When you have a social movement, you need to have a set of organizing principles or ideas. Climate justice has become one of those important ideas.

And of course, climate justice has become a more important idea because of legal actions on climate change. I think the United Nations counted recently almost 900 legal actions on climate change. A lot of those, adjudication of litigation around the effects of climate change, are trying to get to an idea of who is responsible for climate change? How can, let's say, different countries, or groups, or corporations be held responsible for the impacts of climate change? Do they owe reparations or remedies to affected groups?

Climate justice is also closely associated with the idea of transformative justice. These are practices and philosophies designed to create change in social systems. I would encourage you to take note of the idea of transformational justice in Shalanda Baker's article that I assigned for this discussion, and also the idea of energy justice.

A number of these different articles mentioned the idea of energy justice as a fairly nascent idea in the literature. And the idea of energy justice gets at the idea that there are disproportionate access or disproportionate people who have access to the energy system, including its benefits. But also the energy system we know has clear harms and burdens that fall disproportionately on certain groups, like Black Americans and minority groups, who live much more closely to the polluting infrastructure, that Robert Bullard first identified in the '70s and '80s.

And, of course, our discussion of climate justice has to get at the idea of, disproportionate to who? There are plenty of disproportionate harms of the fossil fuel system to go around. But as we start to seek an energy transition, one group that has been notably skeptical, until recently, of an energy transition, mostly pushed by environmentalists-- unions and workers have been notably skeptical sometimes of the idea of an energy transition, and the energy transition that we are seeking, because of probably well-founded skepticism that they may not have the same jobs or standard of living in an energy transition, and I think for good reason.

Fossil fuel-dominated communities-- fossil fuel jobs typically are higher paying than average, than other jobs with the same education level. And fossil fuel jobs in a fossil fuel-dominated community, according to this Marchand and Weber study, typically creates or supports two to five other jobs. So if we seek an energy transition, how are we going to make sure that workers, and unions, and fossil fuel-dominated communities maintain or even improve their standard of living?

And, of course, we know that there are disproportionate harms on frontline or environmental justice communities, like minority groups, like African Americans. We know that there are particular places that are affected by the harms of fossil fuels, including spills, including refining, including air pollution.

And, of course, it's also worth noting that these two groups, that have disproportionate effects of the energy system, are often the same group. You could be a member of a front-line environmental justice community. Whether you're white or Black, you may be a fossil fuel worker also. And you may actually oppose change in the fossil fuel system because you're worried about maintaining your standard of living or job.

And so it's interesting, actually. If you look at the Shalanda Baker article, she talks about her Black relatives, who are fossil fuel workers in Port Arthur. And, of course, this recent headline from *The Washington Post,* a few weeks ago, actually kind of describes now how the conversation has changed. This headline is about people in Port Arthur, Texas, who are surrounded by fossil fuels. But they fear that the climate bill leaves them behind. And this includes not only fossil fuel workers, who work in Port Arthur, but climate and environmental activists, who've been fighting this environmental infrastructure for a long time.

The climate bill, which I've been celebrating in the discussion, we know has significant gaps. And one of those significant gaps is environmental justice. In fact, one of the compromises made in the climate legislation was to allow additional oil and gas leasing in the Gulf of Mexico. And additional permitting of pipelines may be coming this fall. But environmental justice activists, in places like Port Arthur, are quite disappointed by the climate bill, even as much of the climate movement celebrates this bill.

And so this brings me to a basis for our discussion or class exercise that we're going to have. This is a geography article by Heffron and McAuley, asking what is a just transition? They identify four components of a just transition-- justice, universality. It's a geography article. So they focus on space and also the time.

But I want to focus on the different forms of justice because I would argue that there are rhetorical forms or framings of the idea of justice. And they're all quite different. There's the idea of distributional justice. There's procedural justice. There's restorative justice.

They say there's different kind of dimension of universality. That universal forms of justice may include recognition justice and cosmopolitanism. Let's examine that a little more closely-- how Pai uses it in their article.

Distributional justice concerns the equitable distribution of burdens and benefits of energy and environmental decisions. Procedural justice highlights the right to a fair process for different stakeholders to take part equitably in the decision-making process. Restorative justice primarily aims to repair the harm done to individuals, instead of focusing upon punishing the offender.

Whereas, universal conceptions of justice do draw on these other forms of justice. But Pai et al., distinguish recognition justice as entailing recognition of parts of society that might suffer as the result of energy and environmental decisions, and identify individuals and groups who might be impacted by such decisions. The jump to universality is to start to think about groups of individuals, rather than specific harm or specific individuals.

And, of course, cosmopolitan justice is an idea that reinforces all of the above justice forms. But states that the above forms of justice must apply universally to all human beings. And I think it's important for us to think about how our conceptions of justice and how our rhetorical framing of justice may apply to different groups.

Does it apply differently to people in cities or rural areas? Does it apply differently to people involved in the fossil fuel industry, whether or not they're white or they're Black, in the United States? Do we expect that energy workers in the United States should have the same standard living as energy workers in other countries, say India, say in Pakistan? What does this mean for us-- for our conception of climate justice, depending on the scale that we apply it to?

And, of course, I would argue that our idea of climate justice is fairly inseparable from our idea of politics. Just to take the climate part, this is a figure from the Yale Project on Climate Communication. In 2018, they looked at Democratic and Republican views of global warming. And when they asked the estimated-- registered voters if they were worried about global warming, the percentages are quite striking.

You look here, in the left-hand side, regardless of geography, about 80% to 90% of Democrats are fairly concerned about global warming. If you look on the right-hand side, about maybe 30% to 40% of Republicans are quite concerned about global warming.

This is not to say that there are equal distributions of Democrats and Republicans across the United States. But I would argue, for the purposes of our class, talking about cities and what cities can do, there may not be similar numbers of Democrats or Republicans in city and rural areas. That's for sure. But, at the same time, it's also quite possible that our partisanship or our political beliefs may trump, necessarily, where we live-- I guess pun intended--

and this may affect how we talk about climate. Not only climate, but even the word "justice" may resonate quite differently. We talk about racial and social justice quite often in universities. I would argue that justice may not be a frame or a phrase that even carries very far outside of universities. For example, ideas about fairness may resonate more deeply with different audiences.

Just to reinforce this point, again, another figure from the Yale Project on Climate Communication. This is from their sixth American study. They have run, I think, 20 or so surveys since 2008, looking at the US adults' populations attitudes about climate change. They ask questions about race, ethnicity, partisan affiliation, or political affiliation.

And they find that they can segment the US population overwhelmingly into six groups. On the left-side side, there's the alarmed and concerned groups. These are the groups that have the highest belief in global warming. They're most concerned about climate change. They're most motivated to do something about it.

And on the right-hand side, these four groups-- the cautious, the disengaged, the doubtful, and the dismissive-- have the lowest belief in global warming. They're least concerned. They're least motivated.

Of course, on the left-hand side, these two groups, alarmed and concerned, are dominated by Democrats. The other four groups are dominated by Republicans. The groups on the left tend to skew younger and more female. The groups on the right tend to skew older and more male.

And so this is just a question about how are we going to present the idea of climate justice? Is this an idea that is going to have traction with all six of these groups? We're going to discuss this in class.

Finally, there's this interesting quiz, I kind of enjoyed taking. It's *The New York Times* quiz. If America had six parties, rather than two, which would you belong to? This is a political scientist simply commenting on how our major political parties are distributed or comprised of different coalitions and different groups.

Those groups have different social-- certain levels of social conservatism and economic conservatism. For example, you could take the American Labor Party, Progressive Party, and Neoliberal Party as relatively democratic groups. But it turns out that the American Labor Party and the Growth and Opportunity Party, probably more associated with Republicans, have similar attitudes about social conservatism. At the same time, if you look at the Patriot Party, and the Christian Conservative Party, and the Growth and Opportunity Party, it turns out that part of the Republican coalition or Republican Party is relatively close to the economically conservative group in the Democratic coalition, called the Neoliberal Party.

And so this is to say that all of our different rhetorical framings of justice-- how we talk about history-- some of these ideas-- how we talk about the imperative to achieve climate justice-- may resonate differently with all six of these groups. So what we're going to do in our class discussion is we're going to do a discussion exercise that requires you to argue for different energy policy based on different conceptions of justice. And we're going to do this as discussion together. And it's good for you to prepare by looking at the Ramey et al. article, looking at a specific energy policy, and thinking about how different groups might talk about this energy policy.