

TRANSCRIPT

Environmental Insights

Guest: David Victor

Record Date: September 1, 2020

Posting Date: October 8, 2020

- David Victor: Paris is valuable because it's there; it's a city on the hill. It's got goals that a lot of people are talking about. It's got legitimacy, and that's an enormous contribution that we've not had to date, but then we should expect almost all the serious work's going to happen in clubs of countries working outside Paris in ways that are consistent with Paris. And I think most of the diplomats are overly focused on Paris, and under focused on this – the real engines of progress.
- Rob Stavins: Welcome to [Environmental Insights](#), a podcast from the [Harvard Environmental Economics Program](#). I'm your host, [Rob Stavins](#), a professor at the Harvard Kennedy School and director of the [Environmental Economics Program](#) and our [Project on Climate Agreements](#)
- Rob Stavins: The ultimate professional compliment that I can offer someone after having read something they've written is to think to myself, "Gosh, I wish I had written that." There are two people in all of my experience about whose work I've thought that, and neither is an economist, as am I. One is a lawyer, Jason Bordoff, who's on the faculty at Columbia University. And the other, a political scientist, is my guest today. [David Victor](#), who is a professor of international relations at the [School of Global Policy and Strategy](#) at the [University of California, San Diego](#), where he is the director of the [Laboratory on International Law and Regulation](#). In addition, David is co-chair of the [Brookings Institution Initiative on Energy and Climate](#). And he served as a coordinating lead author of the [Intergovernmental Panel on Climate Change](#), where he and I spent many hours together in various parts of the world, some of it fun and some of it less so. Much of David's research has been at the intersection of climate change and policy. We're delighted he's with us today. David, welcome to Environmental Insights.
- David Victor: Well, it's a great pleasure to meet with you and thank you for that kind introduction and the reminder of all those strange places around the world where we had meetings for the IPCC for no obvious purpose, but it was always a great pleasure to see you in particular.
- Rob Stavins: Well, I feel the same way. Of course, now all of that is on hiatus in the latest round of the IPCC. So I'm very interested to hear your impressions about energy and climate change policy. But before we talk about that, I'd like to go back to how you came to be where you are and where you've been. And I do mean when I say go back, go way back. So where did you grow up, David?
- David Victor: I grew up in Phoenix, Arizona in the 1970s. We had moved there from New York City, which was like moving to the moon, and went to elementary school there

and learned a lot of math and science and was always kind of a math science geek from a young age.

Rob Stavins: And what about high school? Did you continue to be a math science geek?

David Victor: Yeah, I continued to be a math science geek, but I went to boarding school in New Hampshire. So it was pretty much as far away from Phoenix, Arizona as is possible, which suited me well, and flourished there, again, in math and science. I learned a fair bit along the way about the theater and lighting and technical theater. And that ended up being the area where I was going to build a career. I did lights and sets for a bunch of dance productions and theatrical productions. And when I went to college there at Harvard, I moved into the theater building basically and spent two thirds of my college career, 60 hours a week, running shows in the [Loeb Drama Center](#). It was going to be the great career for me.

Rob Stavins: But unless I'm wrong about this, you wound up majoring, or as at Harvard, we call it concentrating, in history of science. Is that right? Or do I have that wrong?

David Victor: No, that's exactly right. And it was because it was flexible and allowed me to do some science, ocean chemistry, some atmosphere chemistry and so on, and history. And mostly it was because I was interested in history. It was a liberal arts education where the education wasn't frankly designed with any particular purpose in mind. And I was convinced I was going to be a theatrical lighting designer. And so mostly I was getting practical experience in that domain.

Rob Stavins: So that History of Science Department is interesting because most colleges or universities don't have such a department. And I think Harvard's is if not the leading one in the world, certainly one of the leading ones in the world. What was it like to study history of science?

David Victor: Well, it was fascinating, and what's interesting about that department is the degree is history and science. So you do some science, you do some history, and then you do some history of science. And I was there at the time when the historians of science were really beginning to understand in a profound way about how little we knew about the different directions of evolution sciences. When you go back and you look at the lab notebooks, for example, of the leading scientists, they often knew what they were looking for and frankly manipulated their experiments to go find what they were looking for. And when you have that perspective on things, you realize that you need to be extra cautious about what you don't know, because you could end up running down a track that is kind of a wild goose chase. And so that has stuck with me really ever since then; that has been one of the most profound things I learned from that experience is to keep an eye, a close eye, on things you think you know, that actually you don't know at all.

Rob Stavins: Now, how is it that studying history and science at Harvard led to graduate work, which you did in political science at MIT?

David Victor: Well, so it was luck. Mainly it was luck. When I was a college undergraduate, I got a job as a teaching assistant for a core class on the atmosphere. And I figured as a pilot, I'm a recreational pilot, I knew a lot about the atmosphere. And so I said, "Hey, I know a lot about the atmosphere," and I signed up and they let me do it. And in the course of being a teaching assistant for that class, with Mike McElroy and Steve Wofsy, I learned an enormous amount of atmospheric chemistry and physics, which was fascinating. But the best classes I was taking as a student were political science classes. And so when I looked for graduate programs, because I had basically no vision of exactly what I wanted to do, I looked for graduate programs. I looked in political science because that was interesting.

David Victor: And in political science, the big question of the day was what to do about the Soviet Union, the best place to work on that was MIT. And so I went to MIT's political science department, but sitting in the back of my head was all this knowledge about atmospheric chemistry and physics. At the time, Mike McElroy, Jim Anderson, handful of other people at Harvard were working on this question of the ozone hole. Nobody knew what was causing the ozone hole. There were big international agreements, ultimately the Montreal Protocol, to address the ozone hole. And I was working in those labs, looking at the science, but going and getting a PhD in political science. And that's the luck. It's just amazing how many major events in one's life happen, basically because of luck. And in my case, that was a very lucky moment where I was getting the training in political science, but I had the deep knowledge of the atmospheric chemistry that ultimately led me to study international cooperation around environmental problems, the ozone layer initially, and then the granddaddy of them all, climate change.

Rob Stavins: I agree. So many people I speak with, and this applies to myself as well, any successes, a healthy dose of it is being at the right place at the right time. It just turns out to be so incredibly important. Can I ask you, what was your dissertation topic then?

David Victor: My dissertation was on the history of educational testing. One of the places where historians of science were showing that the scientists had been out knowing what they're looking for and finding it in the data was around the role of race and other properties and intelligence. And my dissertation, which frankly was an unimpressive piece of work, but it was a good experience to go through it and to spend a lot of time deep in the stacks of Widener Library. My dissertation was looking at how those movements in science translated into the early days of what became the educational testing service, the SAT, and so on.

Rob Stavins: I see. Now, my recollection, which may be flawed, is that we first met either when you were a PhD student or not long afterwards through the [Belfer Center for Science and International Affairs](#) where you used to come and participate in the discussions. Do I have that wrong?

David Victor: No, that's exactly right. I met you. You were finishing up [Project 88](#), which was this first magisterial look at what's going on with market-based instruments. And there was a seminar series that I think you ran at the Belfer Center. Some other people were involved as well. Tom Schelling would show up periodically. And I gave a talk on that because also because of luck, I had done a study as a consultant to EPA on what do we know about emissions of methane and other greenhouse gases? And do we know enough about them to be able to quantify them and put them into an emissions trading system? My conclusion was mainly no. So I came and gave a talk about it. And to me it was just, it was astonishing to see all the people that I'd been reading there in the room in one seminar room at Harvard.

David Victor: And that's where we first met. That's where a good relationship with Tom Schelling began that flourished really through the rest of his lifetime. And luck again, this is [an amazing graduation speech that Michael Lewis gave at Princeton in 2012](#) about luck that I recommend to people, because it's just a reminder of if a lot of what happens in your life is luck, then you want to organize your life to achieve more of that luck as it were, but then also recognize that a lot of the unluckiness out there is also randomly allocated. And it leads you just to a different perspective on the role of the society and also how you run a career and the limits of planning every step.

Rob Stavins: And then speaking of that, so what was your first job out of grad school?

David Victor: I suspended graduate school in the middle because with the help of Bill Clark I organized a team of political scientists. I was a graduate student in political science and didn't know that this was a kind of arrogant and presumptuous to do, but I organized a team of 25 political scientists, bid for a giant grant to run a project on international environmental commitments, on international environmental agreements at [IIASA in Austria](#). And there were a bunch of other teams competing for the grant and so on. And I never thought about what would happen if we won, and we won. And so right in the middle of graduate school, I had to withdraw from graduate school, move to Austria, run this research project. Gene Skolnikoff and Abe Chayes and Tom Schelling came over periodically and helped do this. And that's where I did the first large scale, really new research on international environmental cooperation. But it was right in the middle of being a graduate student. So, in the middle 1990s, I moved to Austria, ran that project, and then I came back to MIT for a few months and filed my dissertation and then moved on to the [Council on Foreign Relations](#) in New York.

Rob Stavins: And so that then, your first job out was in New York, is that right?

David Victor: Yeah. And it was at the [Council on Foreign Relations](#). I think when I look back on it, and like you, I advise a lot of people who are early in their career, I look at the career choices I made and recognize that they were completely reckless. If you want to be an academic the last thing in the world you should do right after you get your PhD is go work for a think tank where the medium of communication is

the op-ed, and while there's a lot you can say in 800 words, you don't publish academic papers that way. And so, I was at the [Council on Foreign Relations](#), doing that work, doing some academic oriented work, as well as that. And somehow it did not cause lasting permanent harm to my academic career, but that was not obvious at the beginning.

David Victor: But the council was an amazing place to work because the fellows, the people in the think tank that were thinkers, the fellows were a very, very small group of people. Les Gelb at the time who had been in the *New York Times* for many, many years, Les organized this group of four or five fellows. And it's now grown to several dozen fellows, but it was an amazing group of people. Liz Economy, who studies China was there at the time; Gideon Rose, who's now the managing editor, the editor of Foreign Affairs was there. I was there a couple of other people and it was a fantastic time in particular because of the group was small. And I think that's, to me, been very important in my career, is when you're lucky enough to end up working with a group that's small enough, then people actually benefit enormously from working together in that team. It's the big groups that are often hardest to organize.

Rob Stavins: Right. Now, how did you wind up? So, you went from the [Council on Foreign Relations](#). You wound up at University of California, San Diego with, I think, a stop at Stanford along the way. Is that right?

David Victor: Yeah. I went to Stanford. My last day in New York City was September 11th, 2001, and which was an amazing day to be in New York. I moved to Stanford to run a research project, and it was an interesting, [Electric Power Research Institute](#). And then later BP helped stand up a research project on energy and sustainable development and basically gave me license to shape it. And which was a tremendous opportunity. And so I was either going to go into a normal academic job on a tenure clock or was going to go to Stanford on this, to run this project. And all my academic friends told me to take the normal academic job. And somehow, I went to Stanford and did the opposite. And we did just a tremendous amount of early work on the political economy of energy markets, of natural gas, coal actually as well, a lot on carbon capture and storage.

David Victor: And that's really the place where I had been studying climate for a long time, but that's really the place where I got much deeper foundations around energy technology and energy markets in some way. And I was at Stanford for a long time. It was a great place to be. Stanford didn't really know what to do with me because I was a political scientist by training but I wasn't really publishing political science. They certainly knew I wasn't an economist, and they were pretty confident I was not an engineer, although a lot of the work we were doing was engineering. And so, they put me in the law school and I was a professor of law and I taught regulated industries and energy regulation and energy law from a political economy point of view, kind of law of economics slant on things.

Rob Stavins: So, let's turn now to some of the substance of the work in which you're engaged now and your thinking now, and I thought where we might find ourselves, which is this global coronavirus pandemic. What have been the impacts and, in your mind, what will be the impacts in the two realms with which you're very familiar, energy and climate change, both in terms of energy markets, energy policy, global climate change itself, and then global climate change policy. There's a lot there, but whatever aspect you'd like to highlight, tell us about it.

David Victor: Yeah. So I think the first thing that's worth underscoring, is we don't know. There's a tremendous amount of uncertainty here. And that to me is very important because from an investor point of view, that uncertainty creates a wariness about putting capital to work, especially capital for long duration projects. And so I think one of the most important things to watch right now is where have governments been able to create credibility around their plan? Where have they been able to outline, "Here's a spending program; here's what we're going to spend the money on. Here's why the incentives we're putting into place are credible." And where that's happening, you're going to see capital flood back in. And in many cases, you're going to see a flood back into some good projects.

David Victor: My big concern, the thing that I've learned the most from the pandemic is the pandemic was a gigantic test of government. That a lot of what you need to do in a pandemic, spot problems early on, gather information, listen to scientists, make hard choices, explain to the public trade-offs, create credible policy interventions and response, hold them and put them into place over long time horizons, a lot of what we've done in the pandemic, or some governments have not done in the pandemic, are skills very similar to what you have to do in climate. So I don't believe that the pandemic is miraculously going to result in people worrying more about climate, unless the data suggests the opposite. Totally understandable. But what I really worry about is that there's been a huge test of government and that governments have varied enormously in their competence. And in particular, I'm deeply worried about the federal government in the United States.

David Victor: And I think it's an interesting moment for Europe, because Europe has done actually pretty well. And in the backside of the pandemic, the Europeans are going to be leading with this big European green deal – big infrastructure program, may well result in significant reductions in emissions and put economies on track to much lower emissions. I don't see anything like that right now in the United States. Maybe that'll change with the election. I'm seeing some of that at the state level, not seeing much of it in the rest of the world. And the contrast this time with the 2008-2009 financial crisis, is really striking, because back in 2008-2009, depending on how you count, up to 15% of the stimulus money went into low carbon trajectories. And a lot of it was spent well, and this time outside of Europe, we're not seeing that. So that to me is the really big lesson emerging out of the pandemic that's going to affect the future of energy and climate.

Rob Stavins: That's interesting. You mentioned the current administration, the Trump Administration, where obviously there's little positive action on climate change realm, but if the Democrats do wind up in the White House next January, what kind of climate policy, or for that matter, economic recovery policy, would you expect from them?

David Victor: Well, so of course, a lot depends on what happens in the Senate and the House. And it also depends on what happens with the moderate. I was going to say, moderates, the center of the Democratic Party. I might now call them the moderate wing of the Democratic Party on how far left the party has shifted. So a lot has to be held together. I assume we're going to have a big stimulus this program. I assume that some people are going to call that the green new deal, other people are going to conspicuously call it some consistent with the green new deal, but not the green new deal, because the politics the green new deal for the center on the right are just toxic. So I think we're going to have something along those lines.

David Victor: My concern though, is that we will get to that point after having already multiple stimulus packages that cost a lot of money. And so, our capacity to really steer the system decisively come January, February of next year will be much, much lower than the European capacity. I think the world is really looking to Europe actually more than the United States right now, for guidance, and a vision of how you would do large green infrastructure spending effectively.

Rob Stavins: So, turning to the international domain, David, you've worked in many countries. You've already commented on the European Union and their Green Deal. Is there a particular country in the world, or would it be the European Union as a whole, that in terms of its climate change policy, you find either most impressive or particularly interesting?

David Victor: Well, I think Norway is very interesting because Norway has a big oil and gas industry. It has unlimited amounts of money. So that always helps. They have a fund that is visibly managed and is now being managed more with environment social governance factors, ESG factors in mind, a new fund manager, barely installed. I think Norway is particularly interesting because the Norwegians have shown, even for a small population of highly committed people, that you can make big bets on new technologies. And where those bets are successful, that in effect, you push the frontier and you steer the whole industry. And so, Norway is a small country economically in terms of population, but is engaged in leadership in the way that leadership might create followership. And so that's the thing that the leaders always forget is that the leaders around the world on climate, are for the most part, a tiny fraction of global emissions. By my estimate, maybe 10 or 15% of global emissions come from countries or jurisdictions that are reliably leaders on climate policy.

David Victor: And the more they do, the smaller that fraction gets it. So that's the deep irony in climate. And so the whole game around leadership is changing the technological frontier to make followership easier. And that's what the

Norwegians are doing with a project called Northern Lights, which is a big CCS project. That's what they've been doing with offshore wind. That's what they've been doing with ultra-efficient onshore infrastructures. That's what they tried to do with Germany and a few others in building this big fund to reward tropical nations for not cutting down their forests. And some things work, some things fail, but that's real leadership. And Norway is high on my list for that reason.

Rob Stavins: Now, indeed, some things work, some things fail. And in the past, you were very critical of the [Kyoto Protocol](#). What's your assessment of the [Paris Agreement](#)?

David Victor: I would say, Paris, people stopped banging their heads on the wall. So that's a contribution. They didn't try and do Kyoto or Kyoto plus. Some sense Copenhagen tried to do that a little bit and failed for a lot of reasons. I'm optimistic about Paris because it's an umbrella. It's a flexible umbrella under which small groups of countries can go off and do things. I am worried that people are expecting too much of Paris that the best you can expect of Paris is that it's an umbrella. It's a legitimate umbrella, which means that if a country or a group of countries wants to go off, and for example, sanction other countries for not doing something on climate, that they can find a WTO compatible sanctioning strategy by pointing to Paris and the legitimacy of Paris, the roles, and so on.

David Victor: That's enormously valuable. But what Paris can do beyond that is actually very, very limited. I think the NDCs are mostly thin and a joke. The review process is hobbled by all the compromises that were needed during the rule book negotiations because of their consensus negotiations. And rather than lament that, I think we just need to recognize that as a reality of a global lateral institution that has consensus-based decision making. And so, I expect that Paris is valuable because it's there; it's a city on the hill. It's got goals that a lot of people are talking about. It's got legitimacy, and that's an enormous contribution that we've not had to date, but then we should expect almost all the serious work's going to happen in clubs of countries working outside Paris in ways that are consistent with Paris. And I think most of the diplomats are overly focused on Paris, and under focused on this – the real engines of progress.

Rob Stavins: Now, you mentioned the compromises that had to be made in the writing of the Rulebook for the Paris Agreement. There's one part of the rule book, which has not been completed, of course, that's [Article 6 of the Paris Agreement](#). In previous discussions in these podcasts, we've had quite a few guests who have talked about that. Andrei Marcu, Jos Delbeke, Kelley Kizzier, Paul Watkinson, Sue Biniarz, and most recently, David Hone. Article 6 is the part of the Paris Agreement, that in principle, could facilitate or be a home for so-called carbon markets. What's your view either of Article 6 as a home for that, or if you prefer, of carbon markets in general and their potential role going forward?

David Victor: Yeah. So let me comment on both. On Article 6, I think most people see this as a home for carbon markets, and that seems reasonable to me if carbon markets are of that type, international carbon markets are feasible. I'll talk about that in

just a moment. I read Article 6 a little bit differently. I see Article 6 as a license, a lot of collaborative activities, and it happens that we have focused on the market flavor of those collaborative activities. And my guess is that the collaborative activities that are going to be much more important, are going to be a sector based. They're going to be groups of countries or sub national jurisdictions that go off and build a green steel program, unbelievably expensive. And so you need trade measures to help ensure that the leader firms don't get hammered in global competition for steel, and you need to guarantee procurement of early products so that there's a market for the green steel products. And that's an example.

David Victor: But to me, what's really interesting as you break the climate problem down into sector by sector strategies. You have a dozen or so sectors that really matter, and you're going to need different solutions in each. And this is maybe a perverse reading of Article 6, but I see Article 6 as giving license to that. But most of the real work's going to be done in the small groups working in the sectors. Almost all the attention around Article 6 concerns trading and international carbon markets. And this is an area where my priors, kind of going back to the history of science and what do we really know? My priors about these markets have really changed radically because I saw the market strategies as a way to create more economic efficiency. And I think that remains true.

David Victor: But to me, what's been most disturbing is when you look at almost all the markets, they're designed for low prices, the California Cap and Trade System and so on, these are market strategies layered on top of other regulatory instruments. And the other regulatory instruments are doing most of the work. And concern is, Danny Cullenward and I have [a book coming out](#) later this year on this topic. My concern is that people have tended to view that as an aberration. If only we had designed the carbon markets better, or if only we had designed a carbon tax better, then the market would be doing more of the work. And I think the politicians actually knew what they were doing. I think they've purposefully designed these systems to generate low prices to trade the residual, if you like. And at least the argument we're making in the book is that that's a political economy argument, that because the prices are highly visible and easily misunderstood, that the political system is systematically avoiding the policy instruments that we think would be most efficient economically because they create these big costs and these costs vary by sectors.

David Victor: And so if you link multiple sectors together in a single market, you in effect at the politics of the least ambitious sector, determining what your overall market can do, and that'll be a debate that we're going to help tee up with this. You have a terrific paper earlier this year out from NBER that has a big section on the political economy of markets. And I think more of the thinking around market design is moving in this political economy direction where we're looking at market designs that are different from the ideal, and it's not an accident. It's driven by the politics.

Rob Stavins: In that paper that you mentioned of mine, actually, I talked about this reality that the design of a policy instruments, as they actually get through a political process, are of course endogenous to the politics. And it could well be that the reason we have all of these complimentary policies in the European Union, in California, together with, in those cases, with cap and trade systems, which then lead to perverse outcomes, is precisely because of what you said, namely, that politically politicians would prefer to have those other policies, the technology standards, the performance standards, do the heavy lifting because they want to keep the price low because a visible price is obviously not good politics. It makes the costs explicit, whereas a lot of those other approaches hide the cost.

David Victor: That's exactly right. And I think this is an interesting Rorschach test for us as analysts because for a lot of the analytical community, they see that and they're horrified and they say, "Well, the policymakers need to go back to school and take economics 102. Pick the next class." I, as a political scientist, which might be the real dismal science, because we talk about why political systems consistently don't do the right thing from perfect design. As a political scientist, it is not surprising to me at all, especially if we have a good theory of the political behavior. And I think your paper that came out this year, the book that Danny and I have, a bunch of other things, I think we now in the social science community, are now emerging with theories to explain this. And I think our next challenge is to debate what you do about that.

David Victor: Do you somehow double down and find ways to make the market instruments more effective? I happen to think that designing those market instruments so they become more tax like with price collars and things like that is a big thing. Danny and I in our book spend a lot of time on how to spend the money wisely. One of the biggest benefits of these programs is actually raising revenue. And then there's not been, frankly, enough adult supervision on how that money gets spent. More adult supervision would be very helpful. So there are ways to make the market instruments better, but then we also have to find ways to make the regulatory systems more effective, because industrial policy is back and it can be done well and it can be done horribly. And I think we have to grapple more with how to make it more effective.

Rob Stavins: David, can you tell us again, the title of the book, the publisher, and when it's going to appear so that the listeners, including myself, will know how and when to get it?

David Victor: Sure. It's called "[Making Climate Policy Work,](#)" and it's coming out from a publisher called Polity, which is based in Cambridge, UK. And it comes out in October, mid-October in the UK market. And then I guess they must be moving the books across the Atlantic by steamship or sailing ship because it doesn't come out in the US market until December. So, in December, Danny and I will be talking more about this in the American market, the rest of the world market, and starting mid-October, we will be talking about it in the European market.

Rob Stavins: Great. Well, I'm going to have to get a copy of the UK version, then. My guest today has been [David Victor](#). David, thank you very much for taking time to join us today.

David Victor: Well, always a great pleasure to spend some time with you. And I must say, I don't miss much of the grueling IPCC process last round, but I do miss the opportunity to see you and a handful of us that met at all these different locations and had a chance to catch up. And that was a wonderful part of the IPCC process.

Rob Stavins: Thank you again. [David Victor](#) is Professor of International Relations at the [School of Global Policy and Strategy](#) at the [University of California, San Diego](#).

Robert Stavins: Please join us for the next episode of [Environmental Insights: Conversations on Policy and Practice](#) from the [Harvard Environmental Economics Program](#). I'm your host, [Rob Stavins](#). Thanks for listening.

Announcer: [Environmental Insights](#) is a production from the [Harvard Environmental Economics Program](#). For more information on our research, events, and programming, visit our website, www.heep.hks.harvard.edu.