The Ecopolitics Podcast – Episode 2.14: Global Cities, Environmental Politics, and Low Carbon Transition (TRANSCRIPT)

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INTRO: Just over a decade ago, the world's urban population surpassed its rural population in a trend of urbanization that is expected to continue for decades to come. This trend has raised some interesting questions with respect to how cities can participate in global sustainability efforts and how they might have a say in the governance of environmental politics. In this episode, we dive into these questions with Dr. Harriet Bulkeley, Professor in the Department of Geography at Durham University and at the Copernicus Institute of Sustainable Development at Utrecht University.

[00:00:00] **Harriet Bulkeley:** Most of us will either be living in an urban context or will spend time with friends and family or visiting cities. And in a sense, that means that urban sustainability is for all of us. There's something that we can all contribute to. There's something that you can find, whether it's to set up a whole orange grove right now in your neighborhood, or whether it's to find another group or a collective that's taking some kind of sustainability action.

[00:00:29] **Peter Andrée:** Hello and welcome to the Ecopolitics Podcast, season two Global Ecopolitics. This is a podcast for university students tackling some of the big questions in the field of global environmental politics. I'm Peter Andrée from Carleton University and my co-host for the show is Ryan Katz-Rosene from the University of Ottawa.

[00:00:48] Ryan, do you want to set up today's episode?

[00:00:51] **Ryan M. Katz-Rosene:** Sure, will do a Peter. Our podcast series, as is about ecopolitics and this season is centered on global environmental politics. So it may come as a bit of a surprise to some of our listeners that this episode is looking very much at the urban scale, but there's a good reason for that.

[00:01:10] And our entry point here is global cities. And in today's show, we're examining how the urban scale is increasingly factoring in to discussions about global ecopolitics. So it wasn't that long ago, just over a decade or so now, that the world's urban population surpassed its rural population in a trend of urbanization, which continues to this day and is expected to continue for decades to come.

[00:01:39] And that, as listeners might expect, raises all kinds of questions for how cities can participate in global sustainability efforts and how they might have a say in the governance of environmental politics given the rise of a whole host of new challenges to sustainability.

[00:01:57] So we're very happy to have Dr. Harriet Bulkeley joining us for today's episode. Harriet is a Professor in the department of geography at Durham University in the United Kingdom and the Copernicus Institute of Sustainable Development at Utrecht University in the Netherlands. Harriet, welcome to the Ecopolitics Podcast.

[00:02:18] **Harriet Bulkeley:** Thanks so much. It's lovely to be here with you guys today.

[00:02:22] **Peter Andrée:** So Harriet, I'll ask the first question here and I'll just pick up where Ryan left off there. Why do you think it's important to think about the role of cities in the context of global environmental politics? How are they sites of global eco politics?

[00:02:37] **Harriet Bulkeley:** Yeah, it does feel like a bit of a contradiction, doesn't it, when we think about cities as part of global politics. I think it's because we're so used to thinking about cities in local terms and in a way of thinking about a kind of hierarchy of scale, so that the global is on top and then you've got the national, and then maybe regions or provinces underneath that, and cities lying underneath that. Like a kind of Russian doll image, if you like, so that the global being the biggest and we burrow right down and we find the local underneath that.

[00:03:07] But I guess partly because I'm a geographer and we don't like to take things like scale and space for granted, we like to raise questions about what they really mean, I think when we look more carefully at the idea of the city and indeed what it means to be living on an urban planet, we soon find that kind of hierarchical model of where cities lie as a kind of local site within global politics, needs to be challenged and questioned. Cities driving our economy, the largest cities in the world responsible for 70% of GDP or so, as you said in your introduction, the large amount of the urban population lives in cities.

[00:03:43] So, I think rather than thinking of cities as like underneath the global, we need to think of them as making up the global; they're constitutive of our global experience, our global lives and indeed of the global problems that we create, whether those are environmental or political. So looking at it that way, we need to think of cities as being a key element, a key arena through which both global challenges are created, but also where global solutions can be found.

[00:04:11] So I prefer to think of them as an arena or a strand or a facet of global politics rather than a site where politics derived at one scale, the global, is then implemented at the local. Hope that makes some kind of sense to you.

[00:04:27]**Peter Andrée:** It certainly does. And then thinking about cities as an arena of global environmental politics, I wonder if you can maybe specify or categorize the main sustainability challenges that are related to urbanization as you see it?

[00:04:44] **Harriet Bulkeley:** Yeah, it's probably not coincidental that there's a whole sustainable development goal dedicated to cities and urbanization, because the challenges

of sustainability are so multifaceted and highly varied, actually across different kinds of urban experience.

[00:05:00]I think one of the easiest ways of thinking about it are the sustainability challenges that are generated from the ways in which cities produce the economy and consume goods. So we can think of cities as being a key site where greenhouse gas emissions are produced. The International Energy Agency thinks that roughly 70% of greenhouse gas emissions related to energy production come from the urban environment and that over the next 20 years, we'll expect to see the biggest growth in energy use coming in and out of an urban environment as well.

[00:05:35] We can also think of, for example, cities as being key drivers behind the consumption of plastic, or the consumption of meat, and of other, sand steel, cement, all of these different components, material components that go into making up the urban arena, but then also lead to environmental challenges. Not only local to cities, but globally, so deforestation or sand mining. And so there are implications for biodiversity and also for pollution. So that's a whole set of kind of sustainability challenges that cities face.

[00:06:08] And then if you look at a different set of cities and, globally we're talking about cities in the global South, but we're also thinking about areas of the urban North as well, where questions of poverty and a lack of infrastructure and a lack of access to basic services mean there are sustainability challenges that lie around access to resources and the means of living.

[00:06:30] So these are sustainability challenges related to poverty, to inequality, to a lack of access, to energy or water, and of course also to sanitation. And those sustainability challenges matter just as much, really, as those challenges that relate to the big global issues like climate change and biodiversity

[00:06:50] **Peter Andrée:** As you're speaking Harriet, I'm thinking, over my shelf here I have William Cronon's Nature's Metropolis, which is an environmental history of Chicago that I'm sure you're familiar with. And I remember a key point that Cronon makes is this idea that the city doesn't stand in isolation. In his case, the Chicago was the center of the Midwest of the United States and everything that that represented in terms of settler-colonialism and then in terms of the resource flows - so that conceptually a city doesn't stop at its borders. I know that's super simplistic and I wonder if you can develop this idea a little more - but when I remember reading that, more as somebody who doesn't do city work - it just expanded my idea of the city doesn't stop at borders, it has these long tendrils and is implicated in all of these resource flows that extend well into the countryside and then these days, well around the world.

[00:07:46] **Harriet Bulkeley:** Yeah, absolutely. That's a classic book and a really important way of thinking about cities is that the networks that they depend on, the value chains through which cities need service, whether that being in terms of just energy production, where we get our electricity from, the petrol for our cars, the different fuel, gas, or whatever it might be that is fueling the city. Those have long supply chains that reach globally now, as

you suggested, and then into the kind of complex webs of everything from agricultural products to house buildings generated through sand, cement, glass, and steel, and so on.

[00:08:25] And these things are very, they are very complex chains, but at the end of the day, we know that materials are flowing from places that are resource rich into urban centers and not always done with the highest standards of sustainability in mind. So I think there is this increasing interest in the ecological footprint, if you like, of cities and how we can start to think about that consumption side of cities as being really important.

[00:08:54] But of course, the other side is the waste that cities produce. And my career, my specific interest, has been in thinking about how cities contribute to the climate problem. The way in which the emissions of greenhouse gases that come from cities, and then end up in the atmosphere, then lead to climate change. And what this has meant in terms of what cities should then regard as their responsibilities in the global environmental arena when it comes to the questions of politics, about what role should cities then have in relationship to national governments or international organizations and trying to take action.

[00:09:30] So in a sense, it stretches both ways. You've got the links, the networks that come into the city in the way that Cronon described, but now I think we've got a better sense of how then what comes out of the city also matters globally.

[00:09:44] **Ryan M. Katz-Rosene:** Harriet, I'm going to jump in here. In a way you've set up my next question quite nicely.

[00:09:48]You've talked about how a big focus of your research has been on dealing with climate change and mitigating climate change, particularly at the urban scale. And so you've written a lot about low carbon transitions and I'm wondering about the obstacles to low carbon transition. And you've spoken a little bit about this and I'm intrigued that you've raised a couple commodities or materials; a couple of times you've mentioned sand, glass, steel, and cement.

[00:10:14] I wonder if that factors into the way you would identify what some of the big obstacles to low carbon transition in urban areas are, but I'm curious to just hear how you respond to that. What are these major obstacles at the urban scale that are making low carbon transition, particularly difficult?

[00:10:32] **Harriet Bulkeley:** Yeah. It's a fascinating question and one that I've had the privilege to have some time to spend thinking about for a little while. I think we can take this question if you like, in transitions 1.0 and then transitions 2.0.

[00:10:47] So we'll start with the first kind of wave of thinking about transitions. And here, what we're really thinking when we think about low carbon transitions is how can the city's energy system, its system for fueling transportation, shift away from being based on fossil fuels to being based on alternative forms of production. And this requires cities to become both more efficient in the amount of energy that they use, so it's about reducing energy demand, and then it's about switching that energy demand to other sources, renewables, solar, wind and so on. And of course, some of that can happen within cities, like we can have solar power panels in cities itself, but it's also about the overall electricity supply.

[00:11:33] So on one hand, what is happening in terms of low carbon transitions in cities is related to what's happening nationally in terms of the energy system that they're part of. But when it comes to thinking in the city itself about how can we reduce energy demand and switch to other sources, there are a whole host of issues that really relate to kind of urban inertia and incumbency. So these can come from large scale actors: ways in which local energy companies have been used to producing energy, the ways in which our roads and street scapes are shaped around car transportation. These things are difficult to change immediately.

[00:12:16] But they can also come from very small scale things, everyday practices, ways that we're used to living our lives. Maybe that's the indoor thermostats: what temperature do we set our homes to? What do we expect from office wear? Do we all expect to be in a suit and tie and smart office clothes, even in the height of summer, which means that we then have to have the air conditioning blasting away.

[00:12:40] So large scale concrete glass and steel infrastructures that have shaped cities over time around carbon. Our cities are part of our high carbon world and they've been developed and orientated around the plentiful use of carbon through to our everyday practices and cultures. And I've been really intrigued to think about the relationship between the sort of large scale incumbencies and inertias and the everyday practical, cultural ways in which we think about fossil fuels in the city and what needs to change there.

[00:13:09] So there's a whole set of things there that make low carbon transitions difficult. I would have to say that when it comes to thinking about those basic materials that compose the city - the things that I've been mentioning so far, in terms of the glass, steel, cement, etcetera, but also things that we consume such as meat and plastics - the question of the role of cities in those kind of transitions, I think has only just started to be asked.

[00:13:37] We're only just starting to ask ourselves: what kinds of things will cities be made up of in the absence of those high carbon materials? And I think we're only just really at the beginning of being able to even imagine or ask questions about how cities can get involved in those kinds of transitions.

[00:13:55] **Ryan M. Katz-Rosene:** Thanks, Harriet. I find that the concept of urban inertia or the various forms of inertia, quite helpful. I'm going to shift gears a little bit here to talk about another aspect of the literature on urban sustainability and that has to do with gentrification. And there are specific or more specific theories of environmental gentrification taking place at the urban scale, which I think would be interesting for our listeners to hear about. So can you tell us a little bit about environmental gentrification and what that entails?

[00:14:28] **Harriet Bulkeley:** I can and possibly it's not so far removed from the question on inertia, as you might initially think. But one of the things that we can see that is happening in cities, in the face of these different forms of incumbency and inertia, is a whole range of interventions, which I like to think about in terms of being experiments - forms of experimentation, ways of trying to think about different kinds of approaches to everyday practice or to these large scale infrastructures.

[00:14:57] And we see a really huge range of experimentation happening in cities globally now. Everything from carpools to bicycle lanes, to food growing, food sharing clubs, to new forms of low carbon housing, and a whole host of different entities and the podcast isn't long enough to discuss them all.

[00:15:15] But one of the issues that is emerging as these experiments and as these forms of experimentation and intervention are emerging in cities is, what does that do socially? What does it do to the communities? What does it do in terms of who is getting to have access and rights to the city and who is coming to be excluded from that?

[00:15:41] So many of these different kinds of interventions, but particularly around housing, low carbon housing, and the provision of new forms of nature, what we call nature-based solutions, urban green space, green infrastructure in cities, are leading to increasing land values and price rises in housing and in the areas where these developments are located. In cities in the global North, these tend to be more inner city districts, but we also see the emergence of low carbon enclaves or elite housing on the edges of cities in the global South as well.

[00:16:17] These are becoming quite exclusive communities and often have a detrimental impact in the suburbs or places in which they're inserted because they tend to then raise the prices of land and housing around them. And therefore mean that those communities who previously lived in these places and cities no longer can afford to live there.

[00:16:39] So that's what we mean by green gentrification. We mean projects that are being done mainly through genuine attempts to introduce nature or low carbon ways of living into cities or having this unintended consequence of shaping house prices as such that we exclude people.

[00:17:01] But at the same time, it is notable that some of these projects are done purely for this reason; there are concerns about greenwashing, about urban development taking a label of being green or being low carbon in order to achieve increased price returns and to drive a housing market in particular ways, or drive a landmark in particular ways. And these processes of gentrification can be very socially divisive and they can also be divisive along racial lines.

[00:17:30] And so what we need to be paying increasing attention to is that when we're trying to act, perhaps with all good intentions for climate change, we must not at the same time be creating injustices as we do that.

[00:17:43] **Ryan M. Katz-Rosene:** We know urbanization is a reality. But as you've just explained, there are a number of socioecological costs that we need to factor into this process of urbanization, both in the global South and global North.

[00:17:56]But I think you'll be familiar with a growing literature in some corners of sustainability thought, and I'm thinking in particular here about ecomodernism, which is essentially calling for a continuation of that kind of intensification of human activity, paired with a sort of removal of humans from the - quote unquote, I'm using bunny quotes all over the place here - but from the 'natural realm'.

[00:18:23] So we should embrace urbanization, we should embrace densification, we should embrace intensification of human activity, while simultaneously leaving nature alone. Harriet, I'm curious to hear how you approach this as someone who tackles urban sustainability governance. Should we be focusing on increasing urban densification and intensification?

[00:18:48] **Harriet Bulkeley:** So really interesting perspective, not least in the times of COVID where questions about urban densification are really at the forefront. One of the things about the ecological modernization approach is that it does tend to assume that all sustainability challenges can be met by greater levels of efficiency and by increasing our use of market-based instruments and government regulation in order to manage those things that can't be so well addressed directly by efficiency.

[00:19:22] I think cities are not really always amenable to such sort of command and control forms of governance; they are rather unruly, spontaneous, difficult, crazy and interesting places to be part of and I think that one of the things we have to also recognize is that multiple different forms of sustainability require different balances between kind of efficiency and resilience.

[00:19:52] So one of the things of course, that we are increasingly learning about is how important air, fresh air, nature, reductions of pollution, but also spaces to engage with one another, socialize, and have a sort of an urban livability that is conducive to accommodating difference and also sustaining our wellbeing.

[00:20:17] And those kinds of approaches to urban planning don't necessarily lend themselves to higher density, small units of living, but they require the mixing together of efficient dwelling forms, which go in low in their demands on resources, such as the materials we've been talking about and energy over the long-term with sufficient space to be mobile, to get connected to one another and to nature, to be an active citizen in all sorts of different ways.

[00:20:51] And so I think that we are going to need to move away from a sort of strictly efficiency-based principles of sustainability if we want cities to be good places to live, enjoyable places to be, inclusive places to inhabit with one another and with nature, but at the same time, recognizing that there is a place for efficient design, the moderate use of resources in doing so.

[00:21:16] But cities, generally speaking, people who live in cities use fewer resources per head of population than those who live either in suburban places or in rural areas. So we do need to try and preserve that element of what semi or moderately dense urban places can give us. While at the same time, I think creating these kinds of spaces of connection.

[00:21:39] **Peter Andrée:** Harriet, many of our listeners are really interested in these questions of justice and environmental justice. So I just wonder when you talk about - earlier you mentioned environmental gentrification and how the kind of densification that Ryan was just talking about can be socially and racially divisive, you can create downtown cores where people can carpool and do bike lanes and do the gardening, and they're so attractive

to live in that housing prices go up. And that has consequences for those with less means or who are structurally marginalized in various ways.

[00:22:16] So can you talk a bit about what are the solutions to that? What are the planning or policy tools to intervene in markets to ensure that kind of divisiveness isn't where this goes in the coming years and decades?

[00:22:29] **Harriet Bulkeley:** It is a very challenging question. And I think part of it stems immediately from the idea that perhaps we need to be able to move away from thinking of only of land markets and privately owned land as a means through which to provide housing. And some places we can see government requirements and regulations for mixed-use housing and that can include a proportion of housing that has to be affordable housing, a proportion of urban development that has to be dedicated to the provision of say, schools or shops or other services as well. So there are regulatory instruments that you can use to enable different kinds of land use within the private market.

[00:23:12] But at the same time, I think potentially a very unexplored element of urban planning, maybe particularly in cities that have had a historically large role for the state and also for other institutions, is just that quite a lot of land is owned either by public agencies or by private monopoly organizations, so utilities, transport companies, local authorities, religious organizations. Here in the UK the Church of England, for example, is a very large landowner and indeed the Church of England has recently published a report about what it regards as its responsibility for the provision of low-income but sustainable housing on its own land holdings.

[00:24:01] And so I think this is a bit about encouraging social and environmental responsibility amongst landholders who are intending to have their land developed in one way or another. Also asking landholders whether they have the capacity to engage with this and the provision of public housing and public space in order to enable those who cannot compete in the private land market and will never be able to compete in the private land market, to have access to similar kinds of levels of sustainable housing and access to wellbeing as well.

[00:24:36] And I know that might sound quite utopian and I know it was potentially a little bit socialist even, but I do think that we can't expect private markets to deliver for us against the kind of tide of gentrification and exclusion and as a society, we're going to have to decide what we want.

[00:24:54] **Peter Andrée:** I think that is a really interesting response and I totally see what you mean. I'm thinking about the city of Ottawa where Ryan and I both live and indeed there are lots of municipal spaces, in fact, because it's the national Capitol, the federal government owns an enormous amount of land in and around Ottawa and much of it is in trees and some of it's in farmland. And I think it would be interesting to have a broad range in conversation among everybody who lives in this city about how should these lands be used, both from the perspective of environmental sustainability, but then also social justice moving forward.

[00:25:35] And I think this all relates to work that you've been doing, this program called NATURVATION, which examines nature-based solutions in an urban context. And I wonder if you can tell us a bit about that project in general, and then maybe about how that links to these questions of justice as well as sustainability?

[00:25:52] **Harriet Bulkeley:** Yeah, thank you. Yeah, NATURVATION is very close to my heart, it's actually a project that I came up with colleagues, maybe about five years ago or so, and maybe more now actually looking back at it. And we're just about to finish the project so it's a time of looking back on it and being pleased about its achievements and also thinking about what we could have done differently.

[00:26:14] But the project, as you said, is interested in this concept of nature-based solutions. This term nature-based solutions has got a lot of currency in the European Union, a term developed by the European Commission as an umbrella to catch what they thought were lots of different strands of related activities around green infrastructure, green and blue infrastructure, open green space in cities, green roofs and walls, things like this, but also green cycle lanes, and a re-purposing of public space for recreation and other uses, and they wanted to bring it all together.

[00:26:47] And so the project is funded by the European Commission under their Sustainable Cities and Communities program. And it involves 14 partners across Europe, including six municipal authorities or their community organizations in the cities that represent those cities, as well as universities, the Dutch Environmental Assessment Agency, and other actors as well. And the purpose of the project has been trying to assess what nature-based solutions can do for sustainable development goals.

[00:27:21] The idea about nature-based solutions is that they can generate benefits across multiple sustainability issue areas at once, I think that's why I've been interested in them. I think we don't really have enough time to address climate change on Monday, biodiversity on Tuesday, food on Wednesday, air pollution on Thursday - the week isn't long enough to fare all the sustainable challenges and nature-based solutions have the promise of being able to address more than one agenda at once.

[00:27:48] So by developing, say sustainable urban drainage systems in cities, the idea is that you can address the impacts of climate change, you can create space for people to use for recreation and wellbeing, you can create places which can foster biodiversity, they can also act to clean pollutants from water. So you might address four different sustainability challenges at once.

[00:28:13] And we've been trying to develop tools to assess whether this is the case. We've also been looking at what are the opportunities for nature-based solutions to become implemented in cities, but also these questions of the barriers and challenges that we discussed earlier with low carbon transitions.

[00:28:29] And now we are thinking about how can they be mainstreamed as well? So what will it take in terms of governance, in terms of finance, in terms of cultural change in the urban development industry, to start to think of building with nature and just start to think

of that first, rather than let's think about building a concrete gray roof first, and then think about why we should make it a green roof.

[00:28:53] What will it take for the first solution to be thought of as a green roof and somebody to need to make the case why it shouldn't be? So that for me is a kind of definition of mainstreaming. And that's some of the questions that we're grappling with now that we're at the end of the project.

[00:29:08] **Peter Andrée:** Harriet, can I just ask you again on the social justice question around nature-based solutions, how do you see the, if you will, the social justice co-benefits of nature-based solutions playing out?

[00:29:22] **Harriet Bulkeley:** Yeah. When it comes to the social justice co-benefits of nature-based solutions, I think some of the important points about nature-based solutions and maybe things that differ from other kinds of sustainability interventions in cities, is that we see a whole host of different kinds of organizations and social groups being involved in urban nature.

[00:29:46] So a really wide range of different kinds of actors from indigenous groups in both Melbourne and Winnipeg where we've done some research through to women's groups, youth, groups of elderly people with dementia being included and involved in nature-based solutions work in cities. So I think in terms of processes, inclusion, and involvement in the actual work of nature-based solutions, we can see that there are some really interesting social justice dimensions to them that perhaps you don't get say with car clubs, or solar panels, right?

[00:30:23] At the same time, there are a lot of concerns that as nature-based solutions become more and more attractive, not only because they provide amenity value, benefits for health, benefits for wellbeing, but also because they actually stop your house from being flooded or produce your urban heat pressure in the summer, that they are going to have this gentrifying effect that we discussed earlier, that they are going to be pushing house prices up.

[00:30:52] And we've done various different parts of work in the project and look at this. Colleagues at the University of Barcelona, Autonomous University of Barcelona, have led on our work examining what the social justice struggles over nature-based solutions have been, what their politics are, who is advocating for them.

[00:31:07] We do find that large urban developers can just do some hand-waving about nature-based solutions and use them as a means of increasing property values without really giving back much in terms of the functions or the services or the benefits of nature at both a public level and even to the residents who end up buying those kinds of apartments and land.

[00:31:31] But at the same time, we also find that genuine struggles around nature-based solutions can improve access to nature for different kinds of groups in the community as well. So like most things with sustainability, their politics aren't set from the outset. They're

always places of contestation and struggle, and it does depend a lot on the particular actors and the particular moments through which those politics are realized.

[00:31:58] There are things we can do from a design perspective, from a governance perspective, from an implementation perspective, if you like, to reduce the gentrification approach. And one of the things that are friendly economists at Utrecht University, who we collaborate with also in this project, has shown is that multiple smaller scale nature-based solutions intervening and distributed at different points in the city have a lower gentrifying effect than singular large scale nature-based solutions, which is what tends to dominate the market.

[00:32:31] So one thing that governments could do or land owners could do is if large scale urban developments with nature-based solutions are being planned, is to think about how those could be complemented with other kinds of nature-based solutions that other partners might be able to bring to the table in cities. And in doing that, you can share the benefits more broadly, you can create more corridors for wildlife, you can have a better effect on cooling the city overall. You can share the benefits both publicly and privately.

[00:32:58] **Ryan M. Katz-Rosene:** Harriet, I'm going to jump in here and ask a question that I hadn't planned to ask about urban food production. And I think we all know there's a lot of excitement, some might call it hype, about things like vertical farming or other forms of food production at the urban scale. And Peter and I have been talking a lot about this - about what are the prospects and limitations of food production in cities.

[00:33:23] And so I'm curious to hear your thoughts, what are the prospects for this, what's the potential or at the same time, what are maybe some of the limiting factors involved here?

[00:33:31] **Harriet Bulkeley:** Yeah, it's a fascinating area, and it does have, as you say, a lot of hype around it. I think we can come back to this question of land and of gentrification. Land in cities is rare and if urban food production is competing for value with land that might be better off used for housing, for those who haven't got access to shelter, I think we need to start asking ourselves questions about whether we're doing the right thing.

[00:33:56] At the same time, I think it's really interesting to think about, can we integrate food production into the existing urban fabric so that it's not something that is requiring of more space, but actually weaves in to the space that we already have? So some of the things we can see happening here is, rather than planting pots with ornamental trees, should we start to plant them with productive trees?

[00:34:20] I know in Copenhagen, they've been doing this in urban parks with the idea that this should be in a kind of abundance, that those who might not otherwise be able to have access to fruit would have access to it. So that's one kind of, very sort of simple story, but the idea behind it is to think of food production as taking place in our cities as they are now, rather than reserving space for food production.

[00:34:44] So for me, it's always going to be about, why are we doing it? Are we doing it to grow some small herbs for the high-end restaurant in the West end of London? Or are we

doing it because it fits into the city as it is at the moment, that it can be an easy transition, that it's about abundance and accessibility to foods that some people wouldn't otherwise have? I do think that there is more potential there than we've tapped into so far, but I think it's unlikely to be, if I might be to unkind, unlikely to be led by hipsters, possibly more park rangers.

[00:35:19] **Ryan M. Katz-Rosene:** That's an interesting reflection. And thank you for indulging my question out of left field there. I do want to bring it back to some of the transnational relationships that we have seen, and that you've written about, between cities to bring it back to the global scale.

[00:35:36] So I'm just curious to hear from you, what are these transnational relationships and networks that have been developed by cities? And more importantly are these effective? Are they a way forward in terms of truly fostering more sustainable forms of development at the urban scale?

[00:35:56] **Harriet Bulkeley:** Yeah, transnational city networks is definitely one of my favorite things. I was really fortunate to stumble across this phenomenon of cities organizing amongst themselves and across boundaries towards the end of my PhD and I think we can safely say that it did make my career. I have a particular soft spot for them, of course.

[00:36:15] But I think one of the fascinating things about transnational city networks is both the durability - so we saw the first transnational city networks being formed as early as 1989 and then through the 1990s they grew quite significantly - and those same networks are still around today.

[00:36:33] So as a form of political organization, as a kind of means of cities acting globally on these kind of key sustainability challenges and particularly climate change, we've really seen a durable set of institutions established now for 30 years. But at the same time, they have changed enormously over this period.

[00:36:54] So if they, first of all, started off with this idea of sharing best practice, really between quite independent entities. I think they're now, many of them now, really think of working and moving collectively. They think of themselves as collective actors in the international arena. And you have some high profile networks like C40, which is the network of the big global cities.

[00:37:18]But you also have more smaller networks, so there's a network funded by the Ellen MacArthur Foundation on cities and the circular economy, which is a smaller group of cities, but is equally doing some really interesting things.

[00:37:32] So they come in all shapes and sizes. They involve a whole host of different kinds of cities, and I think they are important in terms of sharing knowledge and learning and best practice, but probably for me, they are most important for two other reasons.

[00:37:47] The first is that they give political confidence to cities to think about acting on global sustainability issues where they might, by themselves, not feel able to do so. And the second is that they really have been enormously effective in mobilizing resources. It's just an

enormous amount of resources that are being directed to urban sustainability initiatives that without these networks in place would not have taken place.

[00:38:18] So that combination between the learning, the resourcing, and the political confidence, is I think the magic set of ingredients which has made this such a kind of robust set of institutions in global politics over these three decades.

[00:38:33] **Peter Andrée:** This is really fascinating, Harriet. And we're getting close to the end, but I just wonder, given what you've just been saying, where I've seen these networks of cities operating is in the realm of food policy - that's an area that both Ryan and I work in. And it is quite amazing to see the lessons and the partnerships that are emerging across cities from Johannesburg and in France, working with the Toronto urban food activists, and so on. Can you give us one or two examples where you've really seen these transnational networks lead to interesting, innovative projects, or change on the ground?

[00:39:07] **Harriet Bulkeley:** Yeah, sure. I think one of the most interesting networks for me to follow over this period of time has been the C40 network. I think it started with just a very few cities and has grown extensively. But one of the things I think has been most interesting about it is how it has now turned from a primary focus 10 years ago or so on setting targets for greenhouse gas emissions reductions in cities globally - it was quite in some senses, quite straightforward - to now being much more concerned with this question of the consumption of cities and how their approach to consumption, particularly in cities in the global North, what its implications are for the overall use of resources globally?

[00:39:55] And so we can see cities now entering into kind of partnerships with construction industries to think about how can you reduce the footprint of materials that are being used to generate new urban development? Cities working on, also on their foods footprints, as you described as there, but food networks also really interesting. And also there's increasing in interest on the questions of justice and solidarity. So both cities thinking about questions of justice within their own city, but also about solidarity with other cities globally and what it will mean for some cities to have to take more action than others in order to address questions of global inequality.

[00:40:38] And so seeing some of those kinds of agendas being set by an organization, C40 and then turning up in sort of policies and actions on the ground in a variety of cities globally, I think is really interesting.

[00:40:50] I think another set of networks, where really there's a huge growth at the moment is in a whole set of networks that I'm partially involved with, which are trying to set targets for biodiversity. And cities have traditionally not really looked at this global policy issue, but we have a new kid on the block called Cities With Nature, which is a partnership between IUCN, the Nature Conservancy, and WWF, but led by Italy. And they now I think have about 180 members who are trying to start thinking about what it will mean for cities to undertake action under the Convention on Biodiversity, and to try and think about what cities can do to both sort of contribute to conserving and restoring nature, but also to living well, thriving with nature.

[00:41:42] And I think this is just a really new, fascinating development and if they are successful in bringing cities into the Convention on Biodiversity, which is what they're trying to do at the moment, while at the same time being successful in enabling cities on the ground to really see the impact and implications they have for biodiversity globally, I think we'll really witness a fascinating set of global politics around this issue in the next decade.

[00:42:06]**Peter Andrée:** For me, this has been a really inspiring conversation, Harriet. And we started with the Russian doll image that you said is probably not the right way to think about politics, where there's the global level, and then below that the states interact, and below them the regions and provinces, and then below that the cities, but this example that you're providing of these networks really shows that the interactions are happening across these various scales and that in some ways we even need to flip that doll inside-out. So thank you so much. Thank you for joining us on the podcast.

[00:42:39] **Harriet Bulkeley:** Thank you very much for having me and I hope your listeners have enjoyed our conversation.

[00:42:43] **Ryan M. Katz-Rosene:** Thank you, Harriet, it's been fantastic talking with you and I just want to add that while we still have one or two more episodes to record for season two, this is actually our final episode scheduled for season two.

[00:42:56] So just want to quickly say thank you to everyone for making this podcast come together. Thank you to all of our guests, yourself included Harriet. Thank you to our production team. A big thank you to our funders at Carleton University and the University of Ottawa and a huge thank you to our listeners.

[00:43:13] A reminder, the podcast is made available under a Creative Commons License 2.0, so please share it, but we just ask that you provide appropriate attribution. And follow us on Twitter @EcoPoliticsP, that's Ecopolitics with a capital 'P' at the end, and get in touch, our website is at ecopoliticspodcast.ca. The Global Ecopolitics Podcast is produced by Nicole Bedford, support with transcription and captioning is provided by Kika Mueller, and Adam Gibbard helps us with artistic design and digital support.

[00:43:46] Thanks to all our listeners, till we meet again in season three.