

Mark Maslin

Thu, 6/3 12:36PM • 56:27

SUMMARY KEYWORDS

climate change, people, world, scientists, problem, country, climate, science, governance, deal, moving, question, degree, co2, planet, moment, real, years, global, important

SPEAKERS

Mark Maslin, Tom Pegram, Jessica Knezy, Zoe Varenne

Tom Pegram 00:01

Hi, and welcome to 'Imperfect Utopias' based out of the UCL Global Governance institute. This is a podcast about the challenges facing humanity and possible global responses. If you're new to the show, and you want to get a list of our favourite books other resources, listen to past shows and to join our community go to [ucl.ac.uk /global-governance](https://ucl.ac.uk/global-governance).

Zoe Varenne 00:35

Today we'll be discussing topics ranging from climate change to capitalism with Dr Mark Maslin. Dr Maslin is a Professor of Climatology at University College London. His areas of scientific expertise include causes of past and future global climate change, and its effects on the global carbon cycle, biodiversity, rainforests and human evolution. He also works on monitoring land carbon sinks, using remote sensing and ecological models and international and national climate change policies. In addition to advisory positions with the Global Cool Foundation, the Sopria-Steria Group and the Cheltenham Science Festival Advisory Committee, Dr Maslin has written eight books and over 30 articles. His popular book "Climate Change: A Very Short Introduction" by Oxford University Press is now in its third edition, and has sold over 40,000 copies. Maslin was also a co-author of the seminal Lancet report, "Managing the health effects of climate change", and the Lancet review paper on the health links between "Population, Development and Climate Change".

Tom Pegram 01:37

Right, this is great. So we've been wanting to get an interdisciplinary climatologist to come in to talk to us and someone who's really making those connections between geology, governance, climate science, and you're really one of the leading voices, I think, advancing that discussion, Mark. So we're delighted to have you here for our first podcast. Perhaps just to begin, you could tell us a little bit about your background, what you're working on here at UCL, just set the stage for this conversation.

Mark Maslin 02:06

So my background is in sort of physical geography. And I then moved into looking at past climates. And through that work, I really was interested in how climate changes. What are the forcing factors? And

that then slowly moved me into looking at how humans impact climate. And so the way I sum up my career now is I look at climate change, both in the past, the present, and the future. And the nice thing is, and I'm very glad you've invited me because I don't see disciplinary boundaries, colleagues of mine see these boundaries, and won't stray, I'm completely opposite, I will do something on the economy, I will do something on sort of like conflict, I will do something on hardcore science. And I also then will quite happily go back and work on early human evolution.

Tom Pegrum 02:55

So thinking about climate change over time, past, present, future, the scientists predicted in as early as 1982, that by this time, the early onset effects of climate change would be undeniable, they'd be just out there, you'd be able to see them. And I think it's not hard to find these planetary distress signals from methane fountains through to the rain forest burning in Australia, and so on. Now, just wondering if you could tell us a personal story about the first time that you saw with your own eyes, the sort of early onset effects of climate change beyond the graphs, beyond the data.

Mark Maslin 03:33

I think for me, the first time that it went beyond the science and actually impacted me personally, was the heatwave in London in 2003. So in 2003, the heatwave in Northern Europe was so extreme that we lost possibly 70,000 people who died early. So these were elderly people that because of the stress of the heat, they passed away during the July and August heatwave. I mean, it's at that moment that I realised that heat waves and particularly extreme climate events were real, and were going to impact normal people, even in countries such as the United Kingdom.

Jessica Knezy 04:13

You mentioned the London 2003 heatwave in your Google conference 2017. You spoke about the threshold of certain areas, as in the same temperature in a city in Western Africa would not be received with the same kind of loss of life. Do you believe that London, as a city, has risen its threshold and how?

Mark Maslin 04:34

So I think the key thing is to realise that each society has its coping range. So for example, in London, we can cope with temperatures up to 26/27 degrees. We can cope with zero and what's interesting in London if you have these white fluffy stuff called snow, suddenly the whole city panics and people go into sort of like panic mode, and children aren't allowed to go to school. Whereas in Toronto, yeah, if it gets to two metres, then they start to worry. So again, it's about what the actual resilience is for each city, or society. And again, that's really important. And it's about moving that baseline. So what's really interesting is the most loss of life that occurred in the 2003 heatwave was in Northern France, and particularly in Paris, and they had a systematic change in all their health leadership. Because of that they were so shocked by that loss, that they completely changed. They changed everything about the health system, their advice to people, etc. And we know from subsequent heat waves, that the number of people that actually were affected was much lower. So that building that resilience is quite easy, but you have to actually think through it. So London now is much better at dealing with heat waves. Again, the 2018 heat waves that we had, were almost the same as 2003. But we didn't have the same massive reaction.

Tom Pegram 06:02

So the heat wave in London was a shocking event, it was something which did capture the headlines. But it seems that the trajectory that we're on now is for a warmer and warmer world, that's what the science tells us. But it seems that a lot of people struggle to understand why there is this sort of lag effect between carbon emissions and increases in global temperature. And I was wondering if you could explain to a non-expert audience, why are we locked into a degree of warming? And what are the implications, the governance implications of this lag in terms of climate stabilisation?

Mark Maslin 06:43

So the problem is that it's one of those strange things, which is, unlike a normal transaction, whereby you would do something and you're getting instant reaction back. So for example, I want some goods, I pay for them, I bring it back. Actually, the climate system is a bit like your credit card. So you're basically buying something, but you don't have to pay later, in exactly the same way, when we put CO2 in the atmosphere. Because there is a lag, there is inertia in the natural system, what happens is that the full heating capacity of that extra greenhouse gases will take perhaps another 10 years to be seen in its totality. And so what it means is, what we're doing today, is actually going to influence what happens in the next decade or two. And therefore, what we're doing is we're already damaging future generations by what we're doing today. And that's a really hard concept to actually get around. Because what it means is we're now planning, we have to deal with climate change now, to actually modify it in 10 or 20 years time. And of course, with our political system that actually now deals in a five year cycle, or in the United Kingdom, a yearly system, you know, sort of, we're getting to that sort of, sort of type of elections, that decadal thinking doesn't work in western democracies.

Jessica Knezy 08:07

What would a proactive Western democracy look like?

Mark Maslin 08:10

So a proactive Western democracy, interestingly enough, I would say, started or should have started with Margaret Thatcher's speech to the UN in 1989. She was a trained chemist, she was the Prime Minister of the United Kingdom. And she stood up at the UN in 1989. And said, climate change is a major issue. And she used the word climate change, not global warming. So she was already a good 10 years ahead of a time, you spent 30 minutes explaining to world leaders, why this was important, and why they should do with it. You had George Bush Senior echoing that sentiment in the same year telling people to do something about it. And then we've had 30 years of lag. So we already had that ready in democracy to actually do something. But the problem is that there's been a systematic lobbying against action, because of the idea that fossil fuels are good for us. And therefore, actually, we can deal with a bit of climate change. And so there's been this 30 years of delay, which didn't help that we also had the financial crash, all of which would mean that people focused on short term ambitions instead of long term societal and global ambitions.

Tom Pegram 09:29

Although the financial crash did put a dent into carbon emissions in the short term,

Mark Maslin 09:34

Unfortunately, only in the very short term. So there is a small dip in the global emissions of carbon dioxide from the financial crash, but within four years, it was back on track. So the problem with the global economic system is that it's very resilient, it bounces back, and therefore we actually got no gains for the environment. For that actual financial crash,

Tom Pegram 10:02

And at the moment, I understand that we're on a trajectory to cross 1.5 degrees around 2035. Is that correct?

Mark Maslin 10:10

So the problem is at the moment, we are still increasing CO2 into the atmosphere. So last year 2018, increased by 2.7%. This year, we think it will be the same, we'll have the numbers in, in the spring, but we think it's going to be about 3% increase again. And so the problem is that this decade, we've increased CO2 in the atmosphere more than the previous decades. And the problem there is we're now looking at a 2020, when we're supposed to actually stop the increase, and actually start dropping global emissions by anything from five to 10% per year, which seems a bit odd when we're already continuing to increase. So there is a real juxtaposition between what the global economy is doing, and what scientists and politicians actually want it to do.

Tom Pegram 11:07

So Margaret Thatcher, a controversial figure, but nevertheless, perhaps one of the first major climate change advocates on the global stage. So if we cast our minds back to the 1980s, some think that was the last chance we really had to, to manage climate change in a controlled fashion. And that chance has been lost. And it's not as if the oceans just recently filled up with plastic, or that we've suddenly began to experience massive biodiversity loss. So I suppose one question is, why wasn't there more pressure to make significant changes to lifestyles then? And why weren't scientists more vocal in making the case for rapid far-reaching measures in the early 90s?

Mark Maslin 11:52

So I think you have to look at how the communication works. So scientists have from 1989 onwards been very vocal, very clear about the risks of climate change. They have had major IPCC reports, which have basically got more and more science, and we have got more certainty. And therefore, the actual terminology has got clearer and clearer with each one. Most interestingly is, of course, that the actual executive summary of each one of those IPCC reports is signed off by 193 countries of the UN. So it's actually not only pure science, it is also a political declaration of what the size is, at that moment in time. So what has changed is the translation of those warnings into the public consciousness. And so one of the key things is that we've had to fight continually a pushback by the climate change deniers. Now, this can be soft, this can be hard. This can be through the fossil fuel industry, lobbying, this can be through political parties trying to lobby, and there can be also that whole thing of denial, which is well we're insignificant, humans really can't change the climate that much. And so this has been a real issue. We got to 2009, Copenhagen, and there was a huge global movement to actually change and actually make meaningful cuts. But that was all then swept aside by the great economic crisis. And Obama coming in and going, "We'll just do some side deals". So the problem is that the voices of the

scientists have always been very clear, consistent, but the opposition, which is fossil fuel industry led, politically led and incredibly well funded. And when you have a media that actually then just trying to push the opposite, then you have a real issue. But things have really changed in the last year or so.

Jessica Knezy 14:01

Could you expand on that?

Mark Maslin 14:03

Certainly, again, I think what has happened is that there have been a number of key movements that have actually taken off. So firstly, again, politics is personality driven. So having somebody like Greta Thunberg coming in and actually saying, "Right, we're going to strike as young people every month," being able to do that having young people take a day off school and saying, "I'm sorry, you mature people, you adults, you politicians, look at the science, why aren't you doing something?" that's incredibly shocking to the political system. Secondly, you've got things like Extinction Rebellion coming along, basically disrupting things all around the world going, "We're going to agitate and we're going to be like little mini terrorists, until you actually take the environment and what you're doing to it seriously." But then on top of that, you've got some incredible changes in the politics. So Paris was a seminal change, because firstly, all countries signed that they were going to try to ensure that global temperatures were kept to two degrees. And there was an aspirational target that will keep them to one and a half degrees, considering we've already hit one degree. Okay, so that was an aspirational target. But that meant it let the scientists off the leash. So straight away, the scientist sat down, "Like right, we can now be commissioned to write a one and a half degree report." So this report that came out in 2018, said, if you want to save the world, this is how you do it. This is the radical cuts you need, you need to get to zero global emissions by 2050. And then after that, you need to suck CO2 out of the atmosphere for the rest of the century. And then you can have your political goal of one and a half degrees, they also linked it in, the first time there is real politics in the actual science, they linked it directly to the Sustainable Development Goals, and said, "If you're going to make these changes, they will have positive effects on these goals, but negative effects on these goals. So you need to match the two together to make sure that you're making a better world and a safer world at the same time." You can't do them divorced, you then have this year (2019), the land report which then said, "Right, okay, we use land for everything well about 25% of all the land in the world is used for humans, whether it's agriculture, settlements, logging all of that. Now, let's have a look at the impact we're having on the land. And then look at the impacts that climate change will have on the land that's actually going to influence whether we're going to have enough food, enough resources into the future." So these are hard hitting reports that are literally just supporting all of this huge new movement. You've got political parties now saying, climate change is one of the major agendas that we have to deal with, because the people require it. And again, interestingly enough, if you look at the UK election, some of the manifestos have incredible changes that they want to do to the fossil fuel base of the United Kingdom. So things are really changing. And people I don't, I don't think have conceived how radical the changes are already.

Tom Pegram 17:26

So there's lots we could pick up on there. I read that you were pleasantly surprised that your daughter became involved in the recent climate strikes.

Mark Maslin 17:32

Yeah.

Tom Pegram 17:33

And I'd be interested to ask you, what is the role of the younger generation, especially those who aren't old enough to vote? And some people in the media and elsewhere have resisted the role of young people as agents of change, saying it's just not their responsibility, or they shouldn't be burdened with that responsibility. Others argue that Greta Thunberg and others risk being co-opted by political or media interests, or whatever it may be. What's your view on the moral force of youth action?

Mark Maslin 18:02

Right. So I think the really interesting thing is, the older generations have no concept of the newest generation, okay, they have no concept to how they think they have no concept of how they actually engage with each other. The whole social media, the whole being networked in. This is the first globalised generation. Okay? All the other generations have limited access or limited knowledge. This is the first fully globalised generation that realises A: how small the world is, B: how easy it is to communicate with all the 7.7 billion people in the world. And they also get their information from different sources. So one of the interesting things about my daughter was, I don't take my work home. Okay, the idea of me walking home and going sort of like, "Oh, Hi, dad. How's the world?" "Well, I'm sorry. It's still screwed. But I'm working on it. Okay. Yeah, we're all going to burn up. But I really, really am working on it." So I don't take my work home. So when she turned around and said, "Daddy, I want to go on the climate strike." I was pleasantly surprised. I went "Wow, this is brilliant, you know, great." And then I had those doubts. Is it because of me? Are there daddy issues? Is she just doing this because she wants to please Daddy, the climatologist and I started to get stressed. So of course, unlike a normal parent, did I sort of like decided to question her. Well, sort of. I basically wrote a blog about it and interviewed her you know, as you do as an academic. So I wrote a blog about it. And the really interesting thing was, the information did not come from me. Okay, there's this brilliant phrase that she has where she says, "Well, I get my information from my teachers. I get it from my friends. I get it from Netflix and the BBC. Oh and if I really must, I sometimes ask you." Okay, that was the final line. Right in there, but the interesting thing is the reason she was going on the strike is because they, as a generation realised this is a science issue. They understand the science, they get that there are solutions, solutions that could make a better world anyway. And they don't understand the older generation not implementing them. And this is the brilliant thing about youth is that you can see a better future. And you can see the solutions, but you don't see the complexity. You don't see the "Why can't you?" And actually, the interesting thing about particularly right-wing and climate change deniers, basically saying "Oh no no no no no you're children, you shouldn't have an opinion", or "Greta Thunberg, you're just being used by the media." Now, that's a soft type of climate change denial. I mean, people have called it climate sadism. Because what they do is they attack a weak opposition by mentioning sort of, sort of medical issues, or Greta Thunberg, or basically saying, "Well how do the children know, you know, they should listen to their adults." And again, the children turn around "Going yeah, except you're not doing anything positive. And actually, you're just doing it for your own good." There's a real interesting power relationship going on there. So yeah, and I have to say it was probably

more scary interviewing my daughter than it was sort of Al Gore, when I interviewed him for a blog as well.

Jessica Knezy 21:28

You've spoken in the past about how we're ushering into a post capitalism era? Do you feel that the sort of determination of this next generation will expedite our society moving into this new era that maybe isn't as consumers simply focused?

Mark Maslin 21:45

Right? That is a huge question and has multiple heads like a Hydra. So the first thing is that if we are to solve climate change, I personally think we do not have time for the revolution. So at the moment, we now have to use every political tool we have, depending on what sort of country you live in, what sort of leadership what sort of power base you have, we need to instigate all the changes now. So if you are fully signed up to capitalist society, and believe full-heartily in the neo-liberal sort of ideal, absolutely brilliant, therefore, remove all subsidies from fossil fuels, and let the market basically drive renewables, tick, if you happen to be in a more sort of dictatorial top down type society, then put lots of regulation and then enforce change. We need those changes now, because we need the CO2 to drop, what we need to do in a more longer term approach is actually have a more sustainable global economy. So we need to work out how by 2050, we can make sure that there are, there'll be 10 billion people on the planet? How do we make sure that they have access to decent shelter, decent food, decent clean water, health care, and also what's really important aspirations for them and their children. So this is something you have to actually build into any society, which means we have to think about consumerism, about how we actually use, how much stuff we use, and how we can actually rebalance that. Because the problem is that if everybody gets a Western lifestyle, such as the United Kingdom, Germany, or even America, then we do not have enough energy or enough stuff in the world to actually fuel that sort of type of society. So there is a real need to shift that society and how we actually perceive humanity into the future.

Tom Pegram 24:00

So I just want to, before we move into the future, perhaps just to pause and reflect on this moment. How vital is the next decade? And your work on denial is really interesting, because you say that climate denial is now kind of shape shifting, taking on different more subtle, perhaps more insidious forms. So it seems that's one key challenge that needs to be exposed and dealt with and perhaps you could expand a bit on that. But also in the governance scholarship, what we're seeing now beginning to come through the discussion is that we are at risk of moving from a distributed politics paradigm. So they annex one kind of paradigm of who gets what, when, who pays to an existential political paradigm, where it's really about whose lifestyle gets to survive there's a lot of concern among some of the climate governance scholars around that. I'm curious to get your thoughts, whether that's alarmist, whether that's a useful kind of framing of a possible paradigm shift?

Mark Maslin 25:08

Right. Okay. So if we start off with looking at climate denial, okay, so I think that's really important. And I think, when we're looking back in history, this will be something that scholars will be looking at and saying how comes they had so much power? So at first, and I have to say, for the last 30 years, the

main attack has been the science, the science isn't very clear, the scientists are sort of like all agreeing, there is some doubt, perhaps CO2 isn't as much as unimportant as it should be. And all of that really is false. And so the science has been very clear, and very vocal for the last sort of, like 25 to 30 years. Saying this is the science, again, we've known about the CO2 effect from the late night 1800s. So it's not a new phenomenon. But we're now moving into a new, more subtle phase. So you get things like, there's the economic argument, which is now "Okay, climate change is real, but it's going to cost too much money to deal with it now, but actually we'll be richer in the future, perhaps we can deal with it then." We should then make some real interesting economic arguments. And this is where real battle is actually occurring between leading economists who win Nobel prizes, saying the four degree world is probably the optimum for the actual economy, and scientists going, "you have no idea what a four degree world looks like, are you really serious?" So there's a battle line drawn between economists and the scientists in climate change. Now, you then have some more subtle things, which is, then people go, "Well, perhaps a warmer world would be better." So that's the humanitarian argument, which is, "don't worry, you know, sort of like everything was sort of like, it might actually be better." And we know that's absolutely false. The extreme weather events, when they talk about warmer weather being better, really? 40% of the people live in the tropics, having days over 50 degrees is not good. Okay. So you know, there's a whole northern Western sort of hemisphere type view of the world. And then the last one is probably the political one, which is, well, why should we do anything? China's not going to do anything, and they're much bigger polluters than us. So it's the shifting the blame to somebody else, and some other political regime, because we're not doing anything wrong. And the last one is in the denial of crisis, which is "no, there's no crisis, you know, yeah, we don't have to listen to Greta. We can do things calmly, we don't have to react." And this delaying tactic is interesting. Because every major societal change, there's always that voice that says, "We shouldn't" Slavery, "no, we shouldn't end slavery now, you know, perhaps we should do in the future. But at the moment you know, actually it's good for the economy," same sex marriage, women's vote, you can name every single major societal change. And there's always voices going "no, no, no, no, just keep it as is, this actually works okay. We can do in the future." And that's exactly what's happening now, with climate change, which they say, "No, no well, it is a crisis, but we can delay it and we can deal with in the future, don't panic now, etc," which again, is false. And it gives a false sense of security when actually, we need to do everything we can now to deal with greenhouse emissions.

Tom Pegram 28:42

So I realised I loaded up that question.

Mark Maslin 28:44

Yeah, so I only answered one bit, because I wasn't going to answer the other bit. Yeah. But because you use lots of long words that none of us understand.

Tom Pegram 28:51

Yeah. So much fun. It's good to get in using shorter words, perhaps. So what I'm curious to ask Mark is just how vital is this moment in time? How vital is this next 10 years? And it seems like sometimes we're getting conflicting information, because you hear about the potential tipping points being crossed, and so on. What needs to be done in the next 10 years?

Mark Maslin 29:19

So it's always difficult to answer the question, how important is the next decade? Because when you're living in it, it feels like the most important, what is a shame is because if we had dealt with this, i.e. climate change at the beginning of the 1990s. Actually, the problem would be a lot less difficult to deal with. So the problem is, by keep putting it off, it means what we have to do is more and more extreme. So had we dealt with it say from Copenhagen, that would have been brilliant, 2009, we've lost another 10 years. So the reason why I think scientists, activists, and a lot of political commentators and politicians are now saying, "This is now the decade we have to actually act on is because of the trajectory." If we can change the trajectory, if we can change the direction of the this huge ship called the global economy, and just gently start nudging it towards low carbon, then we have actually a way of modifying the future to the extremes that we have already predicted. And so for example, one of the key things in the one and a half degrees report is 2020 is seen as the year when we need to start dropping CO₂. And the key thing there is scientists will tell you, what are the consequences of not doing something. So if we want a one and a half degree world, the slower we turn the ship round, the slower we drop the actual CO₂ globally, and the later we hit zero, the more we have to suck out of the atmosphere for the rest of the century. So it's a, it's a sort of balancing act, the more we do now, which is then cheaper, quicker and easier, the less we have to do in the future, when we have to suck out tonnes and tonnes of CO₂ out of the atmosphere, which A we don't have the technology to do. And B, probably the only meaningful way of doing that is massive reforestation, which we should do anyway. But that's not going to be the full solution. That's a good sidestep from your question.

Jessica Knezy 31:40

So you're quite a unique academic, because you're quite interdisciplinary. Do you feel that the singularity of the components of our global governance system is an issue and what would an interdisciplinary global governance system look like?

Mark Maslin 31:59

Right, so the big problem we have is that, firstly, academic disciplines separate themselves into silos. And therefore, the problem is they don't talk among each other. There are some unique events when academics are brought together. So for example, the Lancet report where we brought together all the academic fields at UCL, and we wrote a report on global health and climate change, that came out with some really stark and novel things because medics were assuming that climate change was about more doctors and more hospitals, and diseases, and actually turned out to be about billions of people not having enough food or water. So really big, simplistic shifts. So I think, firstly, we need to have a lot more people that change and jump between or can work in multiple fields. So I, I'm quite happy working on the global green economy. I'm happy working on conflict data, I'm happy working on climate data. And I think we need lots of people like that, to work across that. I think we also have a problem in a lot of democracies, that we don't have a balanced to voice in the political system, from all the different disciplines, you find that certain disciplines and certain subject areas will go into politics. And you don't have the same sort of thought pattern. different subjects bring different thinking. It's really interesting if you look at say, different countries, such as China, or Korea, you find that a lot of the politicians are engineers, or they have a natural science background. And that gives them a very different view and a more rational, logical way of looking at things. Which means if there's a problem, they then go out and go, "right scientists, what is the solution?" And then they instigate that change. And I think we have

strayed away from that sort of base. So rational decisions aren't necessarily made in western democracies, because they don't have that background or rational, logical thought. And the more we can get people into that system, the better I think.

Tom Pegram 34:16

So I think a lot of times when people think of global governance, they think of the UN. And of course right now COP25 is happening in Madrid. And I was wondering, perhaps you could give us some insight into your experience engaging with those kinds of intergovernmental negotiating forums any insights into what those tense negotiations, which apparently are going on right now, what they actually look like, from perhaps the scientist perspective?

Mark Maslin 34:44

So I have to say I had to be very careful here because, unfortunately, scientists have a particular worldview. And they don't necessarily get politicians and they certainly don't get policymakers in some respects. So I've been to COP meetings and had side events where science is presented, "this is the end of the earth, this is how bad it is, etc." And then you have some of the negotiators coming in, and basically being really excited because they've got one sentence agreed by all countries. And so the, there is a different level of expectation there is the scientists, the medics, and all the people that are there to try and actually get meaningful change going. This is where we have to do this is this huge problem? And you've gotten the negotiators down here, gang? Yeah. But we've got all 193 countries to agree to this phraseology, so that the offset is huge. And again, I think what is frustrating is that the lack of ambition, because negotiators are so used to making small little changes, etc. and seeing it as a competition. So therefore, I'm not going to change that because they're not going to change it. So again, I think the problem is it's changing mindset, and trying to actually change your mindset where you get 193 countries going, right? Okay. We're all going to do those things, who can do it faster. And the weird thing is, what I don't understand is actually if you look at the economics, the global green economy, according to our calculations, in 2016, was \$8 trillion a year. It was in America it employs, nine and a half million people, that's 10 times the fossil fuel industry. So if you're a straight economist going, how am I going to make my country richer, he would just put all your eggs into the sort of like green economy basket and go, let's go for it. And this is what I was trying to argue when I was discussing things in careers like you are at the leading edge, this is the new leading edge, this is where you need to go. So there seems to be a disconnect between what is really happening in the global economy, where the money really is going to be made. And then policymakers and the way governments are actually thinking and there seems to be that disconnect. And we need to somehow actually bring economists, scientists and policymakers together and go. "Right, if you're going to drive a sustainable global economy, where everybody gets richer, and everybody feels better off, this is how you need to do it." And the problem is scientists go "Well it's really logical look, you should do this, this, this." And then of course, you get policymakers saying "Oh it's not that simple. It's much more difficult. You have to negotiate it."

Tom Pegram 37:39

Yeah. I mean, as a governance scholar, I'm very interested to ask, you know, is the Paris Agreement enough? And there's an awful lot of fanfare around the Paris agreement as a model for 21st century governance. It's entirely voluntary, it emphasises bottom up processes, emphasises experimentation.

All of that is great, where there's cooperation, where there's consensus, where market mechanisms can kick in unhindered. I'm curious to ask, from your point of view, is the Paris agreement enough? Is it a long term agreement? Or is it actually a short term agreement masquerading as a long term agreements? Well do- So to rephrase that does the Paris agreement need teeth?

Mark Maslin 38:22

Okay. So, history. Copenhagen was supposed to be the Great Leap Forward. Okay. We have the Kyoto Protocol, we're going to have Kyoto two, we're going to have a step up in ambitions. Copenhagen completely failed, okay, completely failed, and was undermined by the Americans. Because basically, they have access to everybody's Dropbox. So they knew exactly what everybody was negotiating. So they came in and basically took the BRICs countries to one sides, and said "We'll just do a nice, friendly agreement between us all okay?" Totally, totally screwed the whole system. Okay. So we rebuilt over six years. So the Paris was what Copenhagen should have been. But six years too late. Okay, so that's the first thing. So Paris is an amazing, get out of jail free card. Okay, so we really have upped the ante. But you're right. One of the key questions is: should it be voluntary? But the problem is that under international law, even if it was a legally binding target, what does that actually mean, in international terms? You know, sort of, again, there is really, in actual practical terms, no difference between a legally binding international target and a voluntary one, there really isn't because you're not actually going to be able to put sanctions against the country because they haven't made something. So legal scholars are saying, "Well, is there a difference? Is it, does it go further now?" No, at the moment, if all the pledges are done, we might get to three and a half degrees. So we might actually pull down the most extreme, but it's nowhere near the two degree target. And it's certainly nowhere near the one and a half degree. So is it a starting point? Yes. And the big problem is that we've had 30 years of these negotiations, something has to actually accelerate and change that. And that really means that major power bodies within the UN need to up their aspirations, and start really throwing their weight around. There's only three major lobby groups that you could do that, USA, Europe, and China. So if you can get any two of those, or preferably all three of those going in the same direction, at a really fast pace, then you could really see Paris having teeth in it.

Tom Pegram 40:47

Perhaps just to ask or explore an example. Is a global enforcement apparatus necessary to ensure that the outliers, the rogue reactors actually do comply with a global climate programme? An example might be Bolsonaro. I mean, you have the Amazon, it's the largest terrestrial carbon sink in the world, it's under threat. Is that indicative of the failure of the multilateral system? Does that imply that we do need some kind of global enforcement apparatus?

Mark Maslin 41:24

Right.

Jessica Knezy 41:25

I have kind of a follow up?

Tom Pegram 41:26

Sure.

Jessica Knezy 41:27

Do you think that there is something more effective to ensure compliance than self-preservation?

Mark Maslin 41:34

So my view about how countries should be involved in the climate change debate, and also how we drive both mitigation-adaptation is by developing a completely new language, which is about win-win. So for example, I've been in South Korea, and South Korea is power comes from 60, coal fired power stations, they constantly have issues with, of course, air pollution. Weird thing is, if they use their technological base, and they move to a completely renewable system, they have huge amounts of sun, wind, tidal, hydro, they could completely remove those power stations within say, 10 to 20 years, they will then clean up their air, and that would actually have a huge effect on their health. So it's then building these win-win, again, why are we spending 5 billion US dollars on fossil fuel subsidies? Okay. That's according to the IMF, if you take into account both the direct subsidies and the climate change damage that they're causing, What, why are we spending that money? If you imagine stripping that money away, and actually then spending that on say, renewables, suddenly you have win-win, so it's moving towards, I think, supporting countries to say, "Actually, by implementing stuff that's going to help with climate change, you're going to improve both your citizens health, their economy and their outlook." And I think that's really important. Again, you mentioned say, how do we deal with Brazil, Brazil is a really interesting and problematic example. Because, again, it's their country, are we allowed to impose upon them our examples of what we think the environment should be? Now, problem is, of course, it's really problematic to be in the UK, and point fingers because of course, we deforested the whole of the United Kingdom, by 1919, we got down to 5% forest cover. Now we're back up to about 11 or 12%, purely because we set up the Forestry Commission that said, we need trees, because we need to have the wood for trenches, because there might be another war after the First World War. And so we have increased our reforestation, but to actually then turn around and say to Brazil, you can't deforest, without any support, or any reason or any financial bonus for doing that, I think is problematic.

Jessica Knezy 43:55

So you've spoken about the need for government regulation. Do you feel that there is a political ideology that best suits the stabilisation of the Earth's biosphere?

Mark Maslin 44:27

That's a huge issue. The problem is at the moment, we have a huge diversity of political systems in the world. Okay. And people argue passionately about which one is best and which one is going to be most successful in dealing with sustainable issues. And actually, they are not necessarily the same. Okay, so the idea of personal freedom versus sustainability actually can be in conflict. What I think is important is for me moving forward, is the idea of actually putting human rights, right at the basis of all political systems. And it's the idea that humans, as a single species on this planet, there must be some set of standards and principles that everybody should adhere to. And again, that is access to shelter, food, water, clean, safe water, and then also the ability to improve themselves, and support their family and improve their family. So these are real concepts. But for me, I think one of the interesting ideas that come out, which is if you say, people should have access to all of those, well, they should also have access to money. Because, again, money is generated by a country. And it's really difficult to pin down

who's generated the money. So you'll see people saying, "Oh, my company has generated X amount millions this year". But actually, when you unpick it, it's like, well, only because there's the taxation that the government collects. So there's all the infrastructure, so actually all the roads you use by all the educated people you use, which are because of the funded universities, you can then start to unpick that and go actually, it is the country that's funded all the basic infrastructure for you to be able to then make money. So it's not your money, it's the country's money. So again, you can then start to say, "well hang on, what happens if we say, in a country, everybody should have a basic income," we will say, "right, everybody has the right to enough money to live a basic simple life," suddenly, all the dynamics change. Because that person, when they're 18, becomes an adult, they can actually take this money, they can do what they want to, they don't have to do what their parents want, they can go to university, they could become an artist, more mature, people can go, "Actually, I'm stepping out my job, because I need to look after my elderly parents who need real care," suddenly, the principle of having to work, otherwise you don't feed yourself or your family drops away. And there is a safety net that allows people to try lots of different things. It's also really interesting, because, again, it works for a capitalist system really well, because what we want to develop in dynamic capitalist societies is innovators. We want people to develop new companies, we want people to take risks. But you can't take risks if you're going to starve. So the interesting thing is basic income allows people to go, "I'm going to try this new technology," "I'm going to try to develop this new company. And I'm not going to take any money out because there isn't any, I'm just going to live off the state and see if I can actually do this." So it allows you to have a great change in the innovation of a country, it allows you to have a lot of social care, because people will make choices because they can actually care for their local community, their local environment, their own relatives. And also you can have a lot more creative work because people will turn around and go, "I'm going to try to be an artist, I'm going to try to be a musician." And then at any point, they can go, "I'm going to go back to the university or I'm going to do an apprenticeship, I'm going to retrain." And actually weirdly enough, it will probably cost the same, if not less than the current welfare systems we have in many countries. Again, it means it's a complete change in the way we actually think about money, and the right to money and the right to a good life.

Tom Pegram 48:45

So I know for Philip Alston, the UN Special Rapporteur for extreme poverty has said climate change is the greatest threat that faces human rights this century. And certainly that's something I think we'll be exploring more in the podcast. And also you've discussed the question of universal basic income. And I know that you also proposed turning half the earth into, is it the Nature Reserve? Is that correct?

Mark Maslin 49:11

So it's the idea that you mentally separate the earth into half for humanity, and half for nature and therefore you can then look after biodiversity and look after the health of the planet. And the 50/50 split is just a sort of like, a way of thinking about it. But it's really important because what we seem to forget is that all our basic systems, soils, our atmosphere, our climate, the water cycling, all of that is actually done by nature, which we're a part of, but what we have to do is then actually make sure we care for it. So we've cut down 3 trillion trees since the beginning of agriculture. So that's half the trees on the planet. So therefore, that's really bad. But it's also good because we know that we can plant another 3 trillion trees, because the planet can sustain that quite happily. And so there's this interesting, weird change, because what's happening is, even though the population of the world is going up, and we'll

probably stabilise about 10 billion by 2050, people are living in more dense settlements. So weirdly enough, even though the population is going up, the world is getting wilder. So therefore, a lot of that wild space, we can now rewild, we can reforest, we can actually start to think about how we actually manage the rest of the world, to produce the services that we require to keep and maintain a safe climate and environment for both us, but also all the other organisms on Earth. So it's that idea that we become the custodians of the earth, we look after it, both for ourselves and in a deeply selfish way, which is, we need a stable planet, we need a good planet for us. But also, we look after it for all the other organisms. And we actually care about things like biodiversity, and the diversity of life across the whole planet. And so we can do both. And that is why we think of it as a split of a 50/50 split between looking after the planet, looking after ourselves.

Tom Pegrām 51:31

So I think really identifying these transition pathways is very much in the spirit of what we're trying to do here with the podcast, you know. So instead of grasping after poorly thought through utopias or dystopian visions, we're really trying to identify concrete ways to move forward in a progressive fashion. That means that tomorrow or next year, or next decade is a bit better than today. So thank you so much for your time. It's been really, really fantastic. Such great insights. I'd just like perhaps to ask, the question that you posed at the end of your book that you've written with Simon Lewis, "The Human Planet", and the question is, can homo dominatus become wise?

Mark Maslin 52:17

Huge question, can we earn our own name homo sapien? Can we become wise? For me, I am inspired by the next generation. So the young people are a completely different species to the one that went before, because they have a completely different relationship with technology, and with each other. And they, interestingly enough, are for me, the first globalised generation, they are the new homo sapiens. They understand how small the planet is, they understand that with touchscreens, with their tablets with their phones, they can be in contact with any person on the planet. And they are demanding change already. And they're not even adults yet. So they're demanding a better world, they already can see how the world can be much better. And I think that is why the 21st century is when all these changes that have to happen, will happen. Because firstly, you have this generation that's demanding it. And you also have I think, older generations that look at their legacy and go, "We've got to do this, because actually, we have not done anything. We need to actually leave a legacy, otherwise our children will never forgive us."

Jessica Knezy 53:48

Well, thank you very much, Dr Maslin. For your time and your insight.

Mark Maslin 53:52

Pleasure.

Jessica Knezy 53:53

Do you have any final thoughts that you'd like to share?

Mark Maslin 53:57

My thoughts are that I think that UCL is a fantastic place to have these conversations. Again, you have things like the Institute of Global Governance, you have a real interdisciplinary mixture of both academics and students. And there aren't the same walls, there's still some walls, there aren't the same walls that you find at other institutions. So I think that some of these discussions and the solutions to these huge issues of the 21st century, UCL and students like yourself, this is where some of these solutions are going to come from. And I'm always fascinated to see where you and all the other students that I teach and look after are going to end up in the whole world because you're going to be the influences and the people that are actually going to instigate the change that Tom and I just talk about.

Jessica Knezy 54:51

Well, thank you very much. Hope we can live up to these very high expectations. Where can listeners learn more about your work?

Mark Maslin 55:00

So I have a website, I also write regular articles for the Conversation. So if you just type in, also as Tom will know I'm quite active on Twitter. So I try to put out tweets which are meaningful about climate change, sustainable development goals, and actually allow you to have access to different information. Occasionally, I have a few side issues where I start having rants with climate change deniers, but for the most part, my Twitter is relatively clean, and is where I try to provide as much information I can on climate change.

Tom Pegram 55:40

Well, we'll definitely link to that. Thank you again Mark.

Mark Maslin 55:42

Pleasure.

Tom Pegram 55:42

It's been fantastic.

Mark Maslin 55:43

Thank you Tom. Thank you very much.

Tom Pegram 55:48

Thanks for tuning into "Imperfect Utopias" to get access to all of our content, and to stay up to date with future zoom calls, workshops and events and more. Check us out ucl.ac.uk/global-governance. If you like this content, please do leave us a comment and subscribe. Till next time.