# Transcript

Sustainable Places: Preparing for the COP28 Climate Summit

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# Speakers:

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Professor Mark Maslin, Professor of Earth System Science, Department of Geography, UCL and the Natural History Museum of Denmark

Dr Simon Chin-Yee, Lecturer, Department of Political Sciences, UCL

**PRITI PARIKH:**

I want to extend a very warm welcome to all of you to the sustainable places event series at the Bartlett faculty of built environment. I am Professor Priti Parikh, the acting director at the Bartlett School of sustainable construction and I'll be chairing this event.

Sustainable Places is the new monthly online event series, led by the Bartlett. Where we invite thought leaders in the built environment to explore all aspects of climate change and the climate crisis and how it intersects with the built environment, looking at sustainability green design adaptation of City's housing. And today, you've joined the june event of the series, sustainable places, preparing for the Cop28 summit live.

This session is captioned live by a human being, if you wish to the view the cops on a separate web browser, please click the link in the chatbox. This session is also being recorded and the transcript will be shared with everybody who registered after this event. And how we run today, we're going to have presentation for the first 20 minutes or so to set the big picture and context for us, followed by discussion and question and answer. I would encourage you to submit questions to the panel at any point during the session by clicking the Q&A function. So, in the sustainable places event today we'll explore how cross sector collaboration can help tackle climate ecological disaster and which of the key areas centered in the built environment and around the built environment sector, which we should consider as we prepare for COP28, this year's global united Nation Climate Summit. We’ll also share our experience of attending COP26 and 27. And how the loss and damage funds in particular, as agreed at COP27 has the potential to influence and inspire action in the built environment. We’ll also, once again reinforce and reflect on importance of cross disciplinary collaborations and how we all need to join forces in the climate crisis and explore how we can collectively inform and shape global debates and decisions in cop 28 in anyway to create adjust a sustainable future for all. And I'm thrilled that we have to speakers that we have today. I've been in awe of thier work, and contributions in climate action. The first speaker I’d like to formally introduce is Professor Mark Maslin. Professor of earth system science at department of geography at UCL, and the natural history museum of Denmark, he’s an excellent science communicator, he has done huge amount of work in the field to influence climate action for years. The second speaker I am thrilled to introduce is Dr. Simon Chin-Yee. Who is a lecturer in the department of political science of UCL, and Simon, I believe you are actually dialing in live from bonn, where in the midst thick of the conversation on climate action so I’m hoping you can give us some insights fresh off the press . And with this, I would like to hand over to our first speaker, Professor Mark Maslin.

**MARK MASLIN:**

Thank you very much Priti. And I would say, if Fatima could stop sharing the slides so I could share mine, that would be fantastic. So I'm going to try to give you a smaller bit of insight into the COP process, and where we got to in the last few COPs. And I have to say, I love this cartoon, and always use this cartoon.

Because of course we all suffered under COVID and we are all about how to flatten the curve and how to reduce excess deaths. But what I was amazed about was that we were still concerned about the future and climate change and the much bigger wave of impacts that are going to happen because of that.

So if we look at the actual UN agreement, The Paris Agreement of 2015 basically said: 196 countries said, we will cut global emissions of carbon dioxide to net zero during the 21st century, firstly what is net zero, well that is the idea that you can reduce emissions as quickly as possible to almost 0 but we also know some emissions we'll never get able to get rid of and therefore what we can do is counter those absorbing carbon from the atmosphere through reforestation, through direct air capture and things like rewilding. I love the UN's comment on this, achieving this will require a complete transformation of energy generation industry, the built environment, and personal behaviours. So basically everything has to change. So to give you the idea of the challenge that we face, the red line of historic CO2 emissions combining fossil fuel industry and land use, and as you can see we're right at the top of this curve. And if we wish to keep temperatures to one and a half degrees we’re currently at 1.2 degrees, then what we need to do is reduce emissions to net zero globally by 2050. But what us scientists fail to tell people, just because, hey even that is almost unimaginable, is then for the rest of the century we need to suck CO2 out of the atmosphere to maintain the 1.5 degrees. Technically feasible, is it possible, then that depends on the politics.

So all 3 of us were at COP26 which is probably the most noisy loudest convention I ever been at. Someone asked me what it was like, I said it was like being at the FA Cup Final for 14 days. Solidly. It was just manic. And out of that came the Glasgow climate act. This had strong statements on the one and a half degree target, including a call for countries to reduce their emissions by 45%, by 2030. It Also said we should phase down coal and remove inefficient fossil fuel subsidies. Which sounds very sensible.

But this was a revelation, this is the first time in any climate change agreement that fossil fuels have ever been mentioned. There’s also a request for new NDC’S or pledges for the next COP meeting, COP27 in Egypt to boost ambition, and perhaps people thought these could become annual. And Article Six a rather obscure rule book about how carbon is traded within or between countries was finally finished. Nobody understands what it means, There’s still some loop holes, but finally agree, what was failed, to happen at glasgow was we failed to honor the 100 billion commitment from the richest countries to the least developed countries to help them move to the renewable energy that was agreed in 2009, it was backed by 2010 and still has not actually appeared to create a Glasgow loss and damage facility, and the ndc is the pledges are not anywhere close to the Paris Agreement of one and a half, we're still looking at 2.4 to 2.8 degrees warming if all of the pledges are fulfilled. So then let's move to Egypt. Oh my word if, Glasgow was at success. Egypt was not. So the agreement included statements on 1 and a half degree target, but not strengthen phasing down of removal of inefficient fossil fuel subsidies was kept, meeting was just keep trying to fight to keep what had been agreed in Glasgow, I did like the Indian proposal to phase down all fossil fuels, which I think was slightly tongue in cheek but that was rejected. No new NPC's, So there was a request for new ones to appear at COP 28 and the loss and damage facility was agreed in principle, not on the Friday the last day, not on the Saturday, but on the Sunday, and unfortunately nobody noticed it because that was when the World Cup kicked off, but it's still failed, the 100 billion commitment. We have no idea who's going to pay for loss and damage facility, and I'm hoping Simon is going to have some insight from bon, and we have no idea it was going to operate, and who will be eligible. India And China refused to contribute funds to the loss and damage, declaring that they were still developing country, and again, NDC do not match Paris agreement 1 and a half, so we are still looking at 4 and a half to 2.8 degrees of warming at least by the end of the century, and with that I’m going to pass back to Priti, because I would like to be more hopeful about the politics, but that's where we are at the moment.

**PRITI:** Thank you so much, Mark for your part optimism around COPs and setting the big scene and picture for us. What I'm going to do now is go a little bit into the implications for the built environment. Next slide please, thinking about why it's important for us in the built environment really to think and consider our actions. Well the reason why it's important for us in the construction sector in the built environment overall is we have a large role to play in those emissions in an energy consumptions. But if we look at emissions, 38% of emissions come from the construction sector. Whether it's building activities or operations and maintenance of assets. On top of that, 23% of emissions come from transport, so if you think about it the way we design and shape the built environment has a huge influence on what future emissions it's going to look like. So what we do really matters. Next slide, please.

There is a fundamental question to be asked here. Quite often you’ll see these beautiful buildings scattered around on our planet. But really, if you think about context and climate, are those glass buildings appropriate for some of the settings we see them in, for example, in the Middle East. So I think there’s a question that needs to be asked around using appropriate materials technologies and solutions which are suitable for the local context, which are suitable for climate conditions. Because if not then we're looking at very high levels of energy consumption. Also a bigger question that we should be asking ourselves in the built environment profession is, should we be building at all. Maybe the best thing for us to do is not build anything, but of course what will happen to the professionals of construction engineering and architecture. But there is a question here around whether should we be looking at a noble scenario, so looking at repurposing and refurbishing buildings, whether we should be building less. So we build for very specific needs of communities and cities. Whether we need to be smarter in how we reuse materials.

looking at whether low carbon materials and whether we be efficient and minimize space. At the moment this is not the strategy, and every week, we're adding city the size of Paris, which means, we are adding 52 cities similar to the size of Paris every year. And that is huge.

Next slide, please. And actually, the no build argument does not work. Because on one hand on the planet we have the glass buildings and other hand we have 2 billion people who lack access to safe drinking water, 3.6 billion people who lack access to safe sanitation services and 1.6 billion people who live in slums, and 800 million people do not have access to electricity. So we still have a need in the building sector to provide access to basic housing needs and infrastructure services that are very basic services.

And infrastructure does have a fundamental role to play in achieving sustainability in achieving climate action goals. So ,this is interdisciplinary evidence review, which are led by UCL but experts across all faculties, and we found that investment in sanitation, a good sanitation, safe sanitation, benefits 130 out of 169 target, What this means is we do need access to these and infrastructure to address climate action, sustainable consumption and all other key aspects of sustainability and climate. This means there will be a need to invest in housing and infrastructure needs. There is a great injustice at the moment because the poorest 50% are responsible for just 10% of total lifestyle emissions. And those are the 50% of populations which are most vulnerable to climate change, i.e.: They are the most likely ones to suffer from flooding for example.

They bear the burden of climate change, and have poor infrastructure and housing stock. So in a way great injustice that the low emitters suffer the most and benefit the least from interventions in built environment.

Next slide, please. So the next question of investment.

So in COP27, loss and damage funds was both success and failure. Success in setting it up, there are potential opportunities now for leveraging finance in housing and infrastructure. But it’s still a potential. And failure, as well, because, what was not clear is the ownership of this who contributes and how to attribute loss and damage. Within the built environment there is the debate of fossil fuels, and whether they have been phasing out and phasing down. The adaptation of cities in the future is going to be really key. So adaptation of current cities but also how we plan future cities and how we are going to plan the 52 Paris cities that are coming up every year, and thinking about how we future proof infrastructure for organization and climate change. And this will require huge financial streams of investment which is why i’m slightly hopeful will addresses this challenge, and with this I’m going to hand over to Simon to tell us more about insights from Bonn and loss and damage funds. Thank you.

**SIMON CHIN-YEE**: Hi, everyone. Thank you Priti, hello everyone, yes I am currently here at the SB58 sessions in Bonn Germany. Which is for Those who don't know, it’s not just the COPS through out all of the years, or their sessional and intercessional that take place throughout the year, that continue these negotiations, and I actually appreciate coming to the Bonn sessions a lot more than the COPS because the cops have become an increasingly huge circus. There's word here in bond that in the UAE, the capital of 100,000 participants. I desperately hope not, because 50,000 last year in Egypt was already too many. But if I could start on a more hopeful note when it comes to the loss and damage fund, what didn't come out of Glasgow did come out of Egypt and cop 28. And this is although as I explained it as Mark has already said, we don't know how this is going to work and after two weeks here we still don't know how this is going to work but at least commitment there was commitment from all member states that there was a need for a fund like this. And that's really hard in a situation where we are talking about this multilateral agreement of funds because in UN F triple C space, it's consensus that it is a deciding factor of where the final text will lie. That means 196 countries have to agree on something, which often means a race to the bottom. But we came up with a loss and damage mechanism where at least the promise of one. One thing I will stress because it's been rearing its head here in these negotiations as it has been for the past 30 years And since the climate regime began, is this north south divide in the negotiations themselves looking at industrialized countries on one hand who have emitted the majority emissions. And on the other hand you have the most vulnerable small island developing states, the African countries that are least responsible but are most vulnerable to climate change. The other mechanism that I’d bring in here, because again for 30 years the common but different responsibilities, is a tool that’s used by developing countries to argue that industrial countries need to act, but it is still strongly being used by countries like India and China.

And here, the understanding here is that these countries especially developing countries they are still needing to develop their economies, it’s not just about tackling climate change, it’s about building their economy, and this is where a divergencey can happen, and actually I like that I just used that word divergent, because I’ve been following the IMO draft text agreements which, again, everything has been pushed to cop 28 Nothing was agreed on, on the two weeks under this text because on one hand you have Japan and the US, who were. Steadfast against the word divergence, and when it was suggested that the word different be used, the US kind of went ‘Okay, we’ll use the word different’ and Japan, said no, we want the paragraph taken out altogether.

So on one hand, you have two countries and on the other hand you have all of the other countries that are against this discussion over one word.

But I would say, didn't change my slides, and one other thing I would stress here, is that there is hope here. There is a lot of countries working together. It's not just about the big negotiations although those are really important, It’s about understanding the country's national action plan, and especially developing countries are really trying to pull this together, but it’s also bilateral coordination meetings that are taking place throughout and across these negotiations themselves. So what is a loss and damage fund?

So we, as in Priti, Mark, and I. Look at loss and damage as going beyond adaptation, or hope that's what we mean by this. Meaning that the negative impacts of climate change that could have been avoided had the right mitigation or adaptation measures been put in place, the UNF triple C, really has a broad definition of loss and damage, that includes any harms that are a result of anthropogenic climate change, which include both slow onset events, like a certification or extreme weather events like cyclones. But, While we’re building resilience and adaptation policy to minimize the impacts of climate change, that are both crucial in establishing loss and damage, loss and damage refers to the situation where this was not effective enough, thereby they have to build resilience, so fund like this could provide damages to community attributed to climate change, and even used to counter some of the damages themselves, in building resilience in the future. So a couple of things, I will just... examples if you will. And in the Q&A please ask me for more examples, I’ve been talking with many many many countries here, and so there’s lots of things loss and damage fund could answer. I was with the Comoros the other day and they explained that the cyclones which hit them a couple of years ago, was absolutely devastating. They had cyclones before but not to the scale and devastation. A loss and damage fund could answer that. Papua New Guinea explained to me that because their island chain is on the pacific rim of fire that they are really susceptible to earthquakes, and because they are an energy poor country, they want to build green hydrogen energy facilities but that could be absolutely destroyed if an earthquake was to take place. In Grenada the tourism industry was completely devastated with 90 plus percent of their infrastructure being damaged or destroyed by hurricane maria. Now this is something that a loss and damage fund could take place. Because it's not that there's, there's a destruction and devastation today. This will then lost and taking the economy, a decade to recover at least, so. There’s just a few examples because I am running out of time here, lots more examples if you want so just to understand what are fund loss and damage fund could look like. We don't know yet, it’s being negotiated this week.

And as I said at the beginning, there’s so much stalling and obstruction here as always at these negotiations that we’re not sure. When we left Egypt, the fund was agreed upon, Okay. But who is going to contribute to it. Who can even draw from it, Who is going to be eligible, for example, how is this going to be distributed and we have to keep in mind, that the fund as of today is empty.

So just keeping that in mind, how this will work, so some of the discussion we have been taking place, and I'll wrap up in 30 seconds Priti. Here at COP are looking at the idea that relief of a fund of loss and damage, needs to be immediate, you need to have a 24 hour turn around in order for a country to access funding for loss and damage if a cyclone, if a natural disaster like this hits. But can we also be potentially be predictive for example.

As opposed to always reactive, if we can predict those communities that are most vulnerable, Like Vanuatu, Barbuda, Bangladesh, all of these communities that are going to be constantly hit. If we can know that then we can put perhaps resilience place packages in place that can address those extreme weather events. But also, a mechanism within the loss and damage fund that could answer slow on set definitions.

So, to sum up here, they need to make sure that there is a fund that is fully operational, meaning that it has money to answer the problems, it’s accessible there’s so much red tape here for country centuries that can't even access the funds when they are there. To be effective and be able to provide financial support in a timely fashion and most importantly that it actually reaches the most vulnerable in the country. And i’ll just end on this very embarrassing slide, of us all at COP28 because this is what interdisciplinary work does look like, and keep your eye out, Priti, Mark myself, and others are writing a paper on loss and damage as we speak. Thank you, Priti.

**PRITI**: Thank you so much Simon for very carefully setting out the loss and damage funds and what it might or might not do. And feels like in our panel we have a combination of optimism and pessimism here, which probably strikes the right balance for us.

And with this i’m going to take a couple of questions, I would encourage everyone to post their questions to the Q&A box. The first question for us really starts with carbon market and industrial emissions. So the question is to make a transition it is crucial to make a bold statement about the starting point and related incentives related to industrial emitters. Do you have any insights about it especially about the carbon market perspective. With this one could I start with Mark.

**MARK:** Thank you, Priti. The carbon markets are both formal and informal. So we have a large number of formal trading schemes, such as the European emission trading scheme, and also in China which is about the same size, and formal and regulated and industry has to do cap and trade approach.

There are other ones in the states and elsewhere around the world, so those are very well understood. And actually the control there is how quickly do you ratchet down the actual limits, and how much do you actually charge. Again, what was interesting. ETS didn't quite work, because the actual price of carbon plummeted, except in the UK they set a floor, that the actual price could not go below a certain amount, and that's how over the last 10 years coal has almost been eradicated almost completely from the UK energy system.

So that's formal, or informal, of course we have offsets and whole wild west of carbon off sets, now a lot of people disagree off sets and should get rid of them. Unfortunately it's a huge market, it is going to grow about 10 fold in the next 10 years, and it's with us, and therefore what we need is to manage it properly. And so for my own, like, feeling is that it needs regulation, both regionally and internationally.

I know Mark Carney before COP26 tried to bring together the actors, both the companies, suppliers and the mediators to try and actually get rules and regulations and better guidelines.

This is still a work in progress.

The other interesting thing is it can be very positive, but has to be fully monitored. And it is very open to many different types of green washing. And so therefore, we need much stricter regulations, and monitoring on that system.

**PRITI**: Thank you, Mark, that's really helpful. I don't know Simon if you wanted to add further insights on to this, or been picked up at Bonn.

**SIMON:** Mark answered that very well. I'll give an example though, if you are thinking what kind of industries need to take place. If you are Looking at the shipping industry for example that I work in. It's all well and good that to make these pledges, but they need to be practical and need to have industry on board if they're going to be effective. Maybe more importantly you want government there. Because you want government to create the policy that industry needs to take on to account that they can green the environment, and keeping in mind, especially with developing global South countries, it’s not just about greening and industry. Wouldn't that be great, it's about growing their economies, economic incentives for the countries. I think the question was around incentive. So if you can have those, whilst becoming a leader in particular industry, or sector, then that's all the better for everyone involved.

**PRITI**: Thank you, that's really helpful. And I think the next question is a question we have been asking all of us have been asking ourselves for years, it's a fundamental question of why after more than 2 decades of negotiations we are unable to stop the effects of climate change, why are we not seeing action basically and is it because economic benefits or lack of will, what's going on and I’ll start with Mark, once again.

**MARK**: Thanks, Priti. The problem is that fossil fuels are in every part of the global economy. And they are incredibly useful! So if you think about it, we fly our planes. We power our ships, cars, trucks, mining equipment, all from fossil fuels. Incredibly useful. Again, if you think about it, imagine a liquid, that is quite stable at normal temperatures. You put it into a 100 ton aeroplane and basically launches it into the air, these are incredibly powerful energy suppliers.

So what we're trying to do is unpick that. And you also have petro chemical states, you have countries that states that rely heavily on the actual income that they make from that. Also they get a lot of political power. So if you happen to be a member of OPEC then you have that power to influence other countries, break them if you want to by changing prices. Why would you ever give that power up.

So therefore we have this embeddedness, you also have some of the largest companies in the world which are the fossil fuel companies who then spend large amount of money basically saying: You need fossil fuels. The other problem that we have is, yes, renewables are amazing, and actually if you look at all the stuff with renewable energy, it's all exponential. Incredible.

Don't think we seen anything like this in the global economy. But all that is doing, is eating up the increasing energy, because we know that by 2050, the global energy requirement will be at least double what it is today if not triple. And at the moment, all of that increase is taken up by renewables, but the base 80% is still fossil fuels, and we haven't started to eat into that. It is an incredibly difficult issue to actually deal with. But we have all the technology we have all the ways of shifting it then just trying to break the actual power blocks that actually are quite happy with the fossil fuel petrochemical dollars going into their back pockets.

Thank you, Mark and I can sense your frustration here after years of tempany.

[Laughter] Simon would you like to share insights once again from Bonn perhaps.

**SIMON**: Not from here, but what I would add on to what Mark said: Governments haven't taken this climate change crisis, as a crisis, they're not treating it as a crisis, we heard this before. And unfortunately, this did not happen. But when COVID-19 broke out, and governments took a crisis, and we saw how they could flip it on their heads and address with varying degrees of success a global crisis. If they treated the climate change crisis like that, we might have had answers, and to the question here, not 20 years, over 30 years now that we have been talking about this. And yeah, it incredibly pressing that we haven't been able to address it. I feel I'm the positive side to Mark's negative side, but that’s only because I’m usually the opposite, taking myself out of my own realm here. Even at UCL for example, university college London. In the Bartlett school, for examples there’s humongous scientific breakthroughs and evidence happening, looking at biofuels looking at renewable you're looking at hydrogen okay all these different types of renewable energies because there is loads out there that can be used to contribute the energy nexus.

**PRITI:** Simon actually you touched on a really important point, because in some of my research I look at access to renewable energy and sub-Saharan Africa for example solar panels, and solar panel has really ranked up. I mean if you look at the scale it’s quite extraordinary. It’s still considered to be a solution for those who are off the grid.

And it's still not considered to be the mainstream solution, with the subsidies built into the policies for it.

And so it's still the private sector players, for example in Sub-Saharan Africa who are electrifying the off grid sectors with renewables, so in a way it feels needs to be the shift of mainstreaming some of those solutions and innovations within the built environment, and beyond, and for example energy efficiency and technical choices.

**SIMON**: There is a shift, in Sub-Saharan Africa there is absolutely a shift and understanding. It’s still just talk and still just words, but there has been a shift in understanding that the government needs to move and regulate these different energy sectors and with the recognition that 9/10 hottest, sunniest countries in the world are Sub-Saharan Africa. There’s huge potential in so many countries for wind, solar, hydrogen for gio thermal for all of these in Sub Saharan Africa, but they need to take that and run with it so that they can for example leapfrog different other energy systems, because they're going to as Mark said, this is just the beginning. The population of actual Africa is about to explode even more and they are going to need energy and a lot of those countries are energy poor already, right.

**PRITI**: And the lead housing and infrastructure which will consume energy, so this is a cycle here as I was highlighting earlier. But now I'm going to move on to the topic of biodiversity loss, and so there’s a specific question around this, on COP 15 received far less coverage than COP 27 but biodiversity loss is having huge impact on climate, what can the built environment sector do to tackle biodiversity loss and how can we push this up the agenda?

Can I start with you again Mark.

**SIMON**: I think you should start with that one Priti.

**PRITI:** I’m trying to as a built environment professional to get insight of those outside of the sector.

**MARK**: I can kick off Priti and perhaps you can add to it. It's deeply frustrating, that COP15 and COP27 are separate events, as we know there are strong linkages between biodiversity and climate change both ways. We will need to have diverse ecosystems to rewild and reforest vast areas if we're able to recover and repair some of the climate change that has already occurred.

So those synergies and I have to say, what is absolutely amazing is that it was only 2 years ago that scientists from both the different COPS actually wrote a joint paper together, this is madness, again, we need this multidisciplinary, and we need the more holistic approach to earth systems. But if we bring it back to the urban environment. It is about how do we bring biodiversity into the cities and how do we actually green our cities.

The key thing is you need to work with the scientists, you need to work with the experts. Because, there are so many times that I’ve seen city planners, who basically decide they are going to have stagnant water in the middle of a city, where suddenly, they become breeding grounds for the mosquitoes that have moved northwards or Southwards, no. Also, things like what trees or shrubs you plant.

Are not the pretty ones, they're the ones not going to exacerbate peoples respiratory problems, providing hay fever ect so you actually have to really think about what biodiversity is healthy and supportive or humans who have to live with it.

And so It's a balancing act, we know that greening cities makes people mentally -- mental health more resilient, and more enjoying life, and things like that. Lots of positives, and you got to do it right, the only way to do that is actually talk to the experts.

**PRITI:** That's really helpful. And just to add to that Mark, I mean there’s two challenges that we see in the built environment, one is in the construction sector, when we think about delivery of projects, and traditionally the emphasis has been on time, quality and costs -- the triangle, but there is increased debate and recognition that the value proposition needs to be hence the focus on environment and social value. And that needs to be really mainstreamed in the construction sector, that needs to be part of the metrics right from the planning stage.

Not from the implementation stage, but from the planning stage of projects and there’s quite a big debate around this and how to measure this and how to bring it into fore.

And another challenge is when we build housing infrastructure, it’s like a blackbox to us. We open our tap and get water so we do not connect water coming from taps to houses, to water resources. We do not connect to the dams that cause displacement of communities, which caused the biodiversity loss. So infrastructure has almost become this black box, which is taken for granted and is disconnected from environmental and natural resources. So I think that disconnect has to be addressed very clearly in our day-to-day lives. The next question, which I'm going to start off with, because it is about India, so I feel I should be starting off with this question, more broadly, I think leads to something that Simon you also picked up around inclusion of developing countries, and inclusion more of those contrast in opinions, and I’ve seen the different perspective shaping out in the last two COPs I have been to in terms of what are the responsibility and actions expected from developing countries.

And I think, in your presentations, Mark and Simon you looked at that quite nicely, that quite often it's the Global South who are low emitters who bear the burden of climate change, and now they are debating whether they should be contributing to the loss and damage funds. India in particular is very interesting because our per capita emissions are low but if you take into account, there’s a billion plus people and supply chains there is huge task in front of us to kind of work through the supply chains to decarbonise the economy. I think in a way India is really interesting setting where there is huge potential for transformation. Because if billion people transform, that has a huge impact on global emissions, even though the per capita emissions are low. And I know there’s a lot of work coming out from China for example which talks about carbon neutrality, and carbon peak, and why is that necessary for human development, and so for me it feels like some of the contrasting opinions are around the need for economic and human development, versus the environment. But I’d be happy Simon to take your view on this.

**SIMON:** Yeah, I mean, if you are talking about responsibilities, the huge North South divide we have here a lot of is based on that. And maybe I'll take another tact is understand what is happening here in terms of capabilities. And capacity.

Right?

Because that comes... to talking to the Syrian delegate this morning, for example who is one person, his English isn't very good, so he is reliant on the G77 to negotiate for Syria. I talked to the UK delegate they sent 48 people. And there’s all kinds of other problems that I’m not even going to bring up within this comparison. The idea being, the capacity for certain countries to even follow the different work streams, and that's really incomprehensible for anyone that has not been to these negotiations to understand what is happening in that space. We have the Glasgow dialogue, we have the global stock take, we have the loss and damage fund being negotiated, we have CBD and there’s so many things happening simultaneously.

That for a country, like Papa New Guinea with I think only 5 delegates. That's still only 5 people, I was in touch with all of them and they were like “this persons doing loss and damage” one person. As opposed to another country that’s being able to send and rotate people for example, at the very last minutes of COP27 I witnessed this. But this was other civil society groups, were going and waking up countries in the wee hours of the morning to say “they're talking about this issue, you have to wake up and say something”, because everyone is exhausted, but no one to replace them. Canada has... they're also exhausted. And can wear people down, and I kind of... didn't answer the question directly there. But understanding representation in the spaces is really important if we're going to actually protect and answer the question of climate change in the global South.

**PRITI:** No but Simon, you do bring that important point of equity in the presentation, which really does matter. And that links nicely to the question, which is post by a colleague of mine, Who was at COP aswell, Effie. Who talks about diversity in climate change, and we talk about countries and assume a country is a single unit, but it’s not. Even between nations, we have different types of capabilities and resources and culture. Our different priorities within subgroups. So how can we bring diverse voices and diversity together with the climate change agenda.

I’m thinking of who to turn to first.

**Mark:** I think that's a really unfair question because it's a huge question. We don't deal with that diversity on any level. So we just take the UK, we are the 6th richest country in the world, but we have extreme poverty, we have people working 2 jobs a day, and still having to go to food banks, so we don't deal with diversity when it comes to with social issues, but then suddenly, we are talking about climate change, of course we have to have diversity, look, if we can't get it right at individual levels when we are dealing with fundamentals of actually just feeding people, then I think it’s a step far to then say academics how are we going to get this diversity, that's a very negative view. I think what's important is we are seeing those different voices. And I know that Simon, there isn't representation, but we are seeing that there are Indigenous groups who are working together, we have the arctic groups working together. We do have lots of voices and for me one of the most interesting things is the COP meetings are the only place that 196 countries, and all these different voices come together now, it’s not fair or equal, but they actually are there. You don't have that at the G8. You don’t have that at the G20. This is the only time that those other voices can occasionally be heard, and I have to say the Paris Agreement was a huge success for the small island nations with least developed countries who were then under that basically supported by blocks like the EU. That was a success for diverse set of views. But huge question, and unanswerable one.

**PRITI**: Thank you, Mark, I agree. It’s a huge question, and lots to consider, especially in the built environment, where there’s already inequity and access to resources and how the built environment is shaped, and who makes those decisions in planning and delivery.

**MARK:** Poor people don't build skyscrapers.

**PRITI**: And they are not a part of the decision-making process aswell.

**MARK:** Sorry, Simon I ranted, your turn.

**PRITI:** I was going to put another question, all 3 of us can tackle. Which is quite fundamental because it is thinking about what UCL and universities can do to drive change within the international climate policy space. And I was going to start with Simon with this one.

**SIMON:** Great.

[Laughter] I think that's a really fundamental and very important question.

And one of the things, one of the reasons I'm here and talking to these countries is to understand the capacity, what we can do at UCL and other institutions like ours think tank experts is also contribute to their capacity. Once we understand what they need and we can understand how we can then support those countries, this is exactly what I'm trying to do. Part of what I'm trying to do in my work.

And that is – we’ve been approached by UN agencies, to say okay, Angola’s over here, they really want to put together an action plan but don’t have the capacity and they are asking the IMO for funding for health, that’s the international maritime organization, and turns to UCL to us, and say do you have capacity to bring on Angola, no we don't, are we, yes we will. There is a limit, there is absolutely crucial space for experts and academics to be part of that discussion. I have people in there they are representing, and not from the actual country, but representing the Marshall islands for example, and doing as academic and scientist and seen that time and time again, Mark.

**MARK**: So what can we do, defend the science. Make sure people understand the science is non-negotiable. It's not a democracy, you can not believe or disbelieve the science. We need to be active on social media, and provide the evidence that people need to make proper policies. We are also there to defend those who cannot defend themselves, as Simon is doing, add our ability to provide voices and amplify the voices so we do have that the diversity, and that's what we do at UCL.

**PRITI:** And I just want to add to that from the built environment perspective, to think about do we need to build at all?

If we do. How do we build. And what type of materials do we use, what type of innovations we can use. And really thinking hard about our actions and implication of those actions. Because when you build something, there is energy consumption, trend, there are emissions arising out of it. We are really thinking about what are we doing in the profession of the built environment. Because as you saw today, that has a huge impact and also acknowledging that future cities may need to be different from our current cities.

And I think really thinking creative in future-proofing our cities. I'm afraid we have run out of steam here in terms of time, and going to apologise to those, whose questions have remained unanswered, but feel free to email us, and we can send responses to your questions, via email, and I wanted to say, thank you everyone for joining us today. And huge thank you of course to our panellists for giving up their time. And for your valuable contributions. And actually look forward to continuing the discussion with you over the next COP. And I just wanted to summarise that this is the biggest crisis facing us, and within the built environment we have a huge role to play, so let's join forces and activate ourselves. And just to say this is actually the last one, the last event in the sustainable places event, but you can catch up on previous events on the YouTube channel, and the recording and the discussion will be there today. And once again, want to thank the panellists and the speakers for the fabulous responses. I want to thank the participants for your challenging, and very insightful questions. Thank you very much and good-bye.

**END OF SESSION.**