# **Transcript**

Disability Innovation Live: An Inclusive Future: Disability Inclusive and Climate Resilient Cities

Tuesday 26th October 2021 via Zoom

\*Note – some of the housekeeping and webinar format information has been removed. Small edits have been made to maximise the quality and flow of the transcript.

**Speaker 1: Mikaela Patrick, Inclusive Design Researcher, GDI Hub**

Hi everyone, welcome to the webinar today. I’d like to handover to Professor Asha Hans who will be our chair for today’s session.

**Speaker 2: Professor Asha Hans**

Thank you very much Mikaela, it’s a pleasure to be here today. Especially at the beginning of a new COP and thank you for giving me this opportunity. The aim of this event on inclusive future, which we are doing today, will have a number of accessible guidelines which you will be seeing. The captions, and you can turn on those, and you can see the also the side by side you can give your questions in the Q&A. Recording and transcript will be provided after the event.

What is Disability Innovation Live?

It’s sharing knowledge, experiences in disability innovation this is part of the work that is done by GDI, a programme put together by the GDI Hub as well as other people who have supported it. We will be sharing stories and innovations and the people behind the product, experiences count. They inform space for reflection, and we look forward to your feedback.

The GDI Hub research and practice centre drives the disability innovation for a fairer world, that is what we’re looking for and what even COP is about - it’s born out of the London 2012 Olympic legacy, Community Interest Company and academic centre at UCL. It has a huge programme in 35 countries.

I am Asha Hans, I live in India. I would like to say a few a things about the programme that we are going on today and on the 11th November. I’m so happy that disability will be included in COP. The aim is to put forward strategies of why we need inclusion of disability in strategies, especially in low resource urban areas. I come from India we have been a member of the UNFCCC for a number of years, but disability is still at the rock bottom.

Most of you might have heard of the IPC report that came out. It has shaken everyone. All across the countries, but except maybe the States who are still negotiating, or trying to negotiate what they get out of this COP. Because it’s going to affect each of us and where we are concerned the failures of the climate policies will be something that will effect us. This is a rare moment which we must remember as a lost opportunity if we do not act.

If GDI had not come up with this programme, I think it would be something we looked back on and think, why didn’t we do it? COP is still in negotiation, is talking about emissions to bring down, and what they’re talking about is emissions from carbon footprints (audio error).

When we look at disability, and we want it to be included we need to look at intersectionalities, because they’re not only of disabilities, they’re also of COP itself, of climate change that we’re looking at arid zones, or we’re looking at data, civilisations, huge cities that no longer exist - most of these are because of climate change, we have seen many of them in the mountains. The arctic melting affecting many countries who are now trying to come up with programme.

You’ll see a country has a programme on accessibility and climate change but these are in silos; they never intersect. This is why there’s a lot of change that we need. There has to be good practice we’ll be hearing from Indonesia, and a number of countries joining us today. Finally, what we need to do, is see out of our experiences, before COP what we need to do in the next few years in the urban experience, I will now call upon Maria Kett, she will speak on disability and climate change. Maria, the floor is yours.

**Speaker 3: Maria Kett, Global Disability Innovation Hub**

I have been asked to give an overview to contextualise the work we’ll look at later. I’m basing this on the work we’ve done over the last number of years. These are some issues and challenges, hopefully we’ll see these being addressed.

We know people with disabilities are at risk from climate change. Not necessarily because of impairments, per se but the link to disability and poverty – poorer people tend to have more vulnerable employment, poor housing and be less able to adapt to extreme weather events. That puts people in the most at-risk group. Our research shows that people with disabilities lack knowledge because they have other worries and concerns, including food and livelihood.

As Asha’s alluded to, climate change policies inadvertently perhaps exclude people with disabilities or there’s just a lack of awareness around these issues. Which is funny because the idea of social justice in climate change is like that of the disability movement.

We also know that extreme weather can exacerbate existing impairments, disabilities and health conditions as well as create new ones.

We also know that people with disabilities tend to lack represent within climate forums and at the UN level little mention of disability in the Paris Agreements this is starting to change a little bit.

The impact on people with disabilities, particularly on health issues, climate events can disrupt social systems, support networks, access to health car, etc.. Those things, we know when there are disruptions to support network you’re more at risk to things like sexual and gender-based violence.

There’s a lot of extreme weather events which leads to disruptions of crop yields etc, and causing relocation. This is an interesting area, there’s little research done on people with disabilities and their link to migration issues. I hope we’ll have discussion around this. We know climate change is linking to water distress: leading to livelihood damage around agricultural, farming fisheries issues.

We know that increasingly people are seeing the reason to migrate. We know that people with disabilities are often excluded from discussions about the right to migrate. All these issues can be attenuated in urban areas as well.

Our research has shown a number of factors, that is a very systemic exclusion - that leads people with disabilities to focus on immediate priorities like disaster risk reduction rather than longer term climate focused action. This is an important point, there is a number of frameworks to address disability inclusive disaster risk reduction. Where they intersect with climate is perhaps a point for discussion.

We also know that, to date, there have been few effective partnerships to include people with disabilities and climate issues. There’s still a massive gap around understanding of issues. It’s trite to bring up accessible inclusive sustainable transport...but we know there is a need for capacity of these issues on both sides.

Asha touched on the intersectional aspects of the climate disability nexus - there’s little research on the life course for example, the impact of children, older people, Asha touched on this. These intersectional issues need to be unpacked and researched and understood much more systematically then to date.

I guess this is obvious - it’s to think that climate response doesn’t intentionally exclude people with disabilities. Maybe it is unintentional but it needs to be much more dialogue around it.

Final point, around justice processes. All of it is focusing on just transition, just process. I think that’s partly linked to the paradigm shift this CRPD is aiming for. The final point, what would a just COP26 look like? So, I think we’ve had some success about bringing disability to COP but they have been side events. Disability hasn’t been front and centre we’re not asking for separate needs - they need to be included.

Disability needs to be considered as a key intersectional point, a lot of the work has focused on, the climate movement, people with disabilities as a vulnerable group. We need to move away from this as people are vulnerable, per se.

Final point we know that people with disabilities need to be active participants; the mantra “nothing about us without us" those are very quick run through of issues around justice and climate movement.

Thank you.

**Speaker 2: Professor Asha Hans**

Thank you, Maria, for giving a broad overview of what we should discuss today you touched upon very important issues like migration where usually what I’ve seen is all disabled people, whether children or adults, get left behind most of them as part of single headed households. This creates a lot of issues and gender roles because of the seas that are getting hot, unfortunately they are dying in many parts of the planet

then the most important, of course, is the dialogue. What is COP talking about? They’re still talking about zero emissions and what we’re going to reach in terms of emissions; the social part is lacking. You’re very right that we’re participants in that process. Next speaker is Mikaela Patrick who has been helping to organise the session she is an inclusive design researcher and will be talking about inclusive design and resilience.

**Speaker 1: Mikaela Patrick**

Thanks Asha, hello everyone. Maria’s given a great overview now I want to introduce a topic: inclusive design of climate resilience. We believe design is an untapped resource, and we’ll be using our event to set an agenda for climate resilient cities.

The design and planning has a crucial role in a more equitable future. SDG11 calls to make cities to be inclusive, safe and resilient for all. But we need tools to help us with this. We think inclusive design will create opportunities for resilience and ensure marginalised groups are not left behind, it will also make sure disabled people are included in conversations. Inclusive design is so that everyone can experience the world around them in a fair way. If inclusive design solutions aren’t designed with sustainability or resilience in mind, their capacity over time will diminish.

We don’t want that to happen. I want to share some examples. These examples come from UK Aid funded 2030 programme. The first example is about inclusive and good quality road infrastructure - good quality roads should support access and drainage. These show two roads in poor conditions: Mongolia is steeped and unpaved. Then in the image on the right, you can see here a road in the city centre in Kenya where congestion is building up because the road is blocked by rubble and flooding. Drainage is a key issue for the environment and access. These show how drains can be barriers for those with visual impairments. The first image shows it’s hard to navigate, the second image shows how flooding makes it hard to navigate with a white cane.

The next example is about inclusive housing and buildings - all three do not have step free access. Two are raised above ground for flood protection. The image on the right in Varanasi shows huge access barriers to enter the building there are 3 narrow steps, for flood protection, but, before you enter there’s a wooden plank this may support some people, but they do not help disabled people. These last examples here show why we need inclusive design. The intervention on the right is looking at the gaps in Varanasi which is a stepped heritage site along the river Gangesas you can see from this image, any intervention placed here is going to have to consider changing water levels the water is rising above the steps in this image.

At COP there’s going to be a lot of discussion about retro-fitting buildings for climate resilience. We want to make sure these designs incorporate inclusive design so we know resilience is designed and resolved at once.

Thanks very much.

**Speaker 2: Professor Asha Hans**

Really cross-world issues that you’re a part of - these are global issues I can give a small example, at World Bank, which have set up shelters which are finally accessible but they’re in a coastal erosion space - so when the sea comes up you cannot access them these are things that hot spots have to be checked for.

Next speaker is Lloyd Wright from Senior Urban Development Specialist at Asian Development Bank He’ll be speaking about the, best practice, Karachi Bus Rapid Transit Red Line Project.

**Speaker 4: Lloyd Wright, Asian Development Bank**

Thank you Asha, hello everyone, I’m flattered Asha that you’re putting as out there as a good practice example.

Our Karachi project is a 500milllion dollar project to create a mass transit corridor in one of the largest cities in the world that has no formal public transport It’s so much more, really, than a mass transit systeme very single one of the images that you see on the screen is a theme and a sub sector in the project we like to think of this as, really, an urban transformation project that happens to deliver mass transport system.

There’s a lot of synergies between each one of the SDGs (Sustainable Development Goals) therefore adding each one of these produces a much more robust project. Next slide. We’ve been fortunate to work with a non-governmental organisation called Pak Ever bright a disability rights NGO. It really makes a difference in your design to have a perspective from the community. Not just on disability but on the important local context. So the example you see up there is one of our other projects that recently completed in Pakistan. What we’ve been successful to do is to create a barrier-free, universally accessible experience from the time they leave their home to when they reach their destination but that really requires thinking through every stage of the trip. From the urban environment, to entering the station, to buying a ticket, getting to the gate ,the platform, onto the vehicle and onwards.

We’re also looking at inclusion in a much broader sense. One of the historically disadvantaged groups in Pakistan have been women who have been reluctant to use public transport because of harassment and security creating a doorway with a dedicating queuing space takes down a lot of the pressure and anxiety that women face when travelling. Likewise, creating a space inside the public transport vehicles dedicated to women makes a huge difference in terms of reducing incidences of harassment - crowding is one of the principal forms in this city, before the project, only 10% were women because of the challenges women faced.

In the one year this project has been ongoing, we’re seeing the ridership up to 40% of ridership which means so many more women feel comfortable participating in the economy, public services, to be able to safely get out in the city. We’re also looking at opportunities to bring in women where, traditionally, they haven’t been. That means looking at senior management positions and even, in a very traditional society, bringing in women to jobs unheard of before, such as being drivers.

Finally, on resilience, in our new project city in Karachi you may be aware it’s 11 months of the year a very dry desert but 1 month a year, we get extreme monsoons which have been worsening. This is the corridor that we will be constructing a new public transport system on. Every August it looks just like this. Rather than a traditional drainage system, something that is much more robust and resilient we looked as some progressive schemes in terms of bioswales and retention swales. These are more effective than traditional methods. Along our 28km corridor we are putting in world-class pedestrian and bicycle ways we’re going to marry this with permeable tiles and bioswales for drainage. I love this slide because it gets to the challenge Mikaela put down: are there measures that bring accessibility and resilience together?

This is a universally accessible corridor that’s also a sponge. That captures the spirit of this event - bringing together disability access and resilience. We’re even, on this project, putting in a grass strip in the middle of our bus lanes in the middle of the US which we’ll replicate in Karachi.

It’s been a pleasure to share with you. In karachi we’re breaking ground in about 40 days, we’re counting down and we do hope that this is one perspective on mapping a way forward for both inclusion and resilience.

Thank you. Back to you, Asha.

**Speaker 2: Professor Asha Hans**

Thank you Lloyd. It’s really you know amazing what you can do in bringing resilience and sustainability as well as accessibility together. I haven’t been to Karachi for a number of years, but with the population in South Asia, I understand the problems you’ve faced. This might be one of the issues we can discuss maybe later. The new metro system and the role of persons with disabilities. The next speaker is Asih Radhianitya please, the floor is yours.

**Speaker 5: Asih Radhianitya, Kota Kita**

Thank you, professor Asha. Hello everyone, good evening. Joining you from Jakarata. On the left here we have a picture of the internal flood which has reached up to the housefloor while on the picture on the right, through a research project we met a deaf online ride-hailing driver the spontaneous heavy rains has affected his working hours and income as he’s using a hearing aid more prone to wire damage.

These two pictures show how person with disabilities will be the ones most affected with more barriers to basic needs. Despite the efforts to mitigate the climate crisis, disabled people are often left out take public transport as an example.

Is it inclusive?

One example from Indonesia is a picture of Batik Trans Solo. The new design of the bus stop have different platform height to the bus, restricting the access for people with physical disabilities: only 52% of people with disabilities use the public transport. The reason being accessibility. What is not familiar with our current focus is that disabled groups are often villanised for not choosing these more sustainable options.

We have the Stilt house, unfortunately this isn’t accessible. Here you can see pictures of the inclusive responses process. For Kota Kita, we believe inclusive responses centres on meaningful citizen participation and the first partis data - we advocate for the voices as citizens as data. Not just as hard stats and numbers but also the lived experiences, their needs. Second, planning, in which disabled groups are the experts there will be no one that knows better with climate crisis impact and the impact on persons with disabilities than them. But there are also some good examples, like Lloyd has presented, like Karachi where their voices are heard. We always incorporate inclusive participation in all projects, e.g. in our current project in Jakarta we want to understand their daily experience of climate change, we need to gather data of experience end voices including people with disability.

Here just a quick wrap up from me, on why disabled groups should always be included. Access for disabled groups = access for all. Hence, inclusive and climate responsive initiatives should go hand in hand. Resilience should be embedded in the implementation - it can’t be an add-on by incorporating the perspective of people with disabilities we also increase the chance of change to happen in the future. More research and intervention is needed in this area to build a more inclusive city for all.

**Speaker 2: Professor Asha Hans**

Thank you, Asih where persons with disabilities are concerned, at COP also usually what happens with governments and departments that to bring in people who should be participating who know much more than them about accessibility - is that this is a “scientific” thing or “engineering” thing - so there are certain mindsets that are there that need to be removed. It’s a great pleasure to invite Ben Oldfrey, he will bring a presentation on co-benefits of local production for inclusive and sustainable futures.

**Speaker 5: Dr Ben Oldfrey**

Hi, yes! I’m going to talk about local production. So, to start with, jump straight in and look at some areas that we know need improvement for assistive technology provision.

For AT provision, we know there’s a lack of after care. Users are not supported well afterwards, leading to abandonment. Supply is not often stable people don’t trust they will have a device for life, people who could benefit don’t want to risk becoming dependent on something they can’t trust they’ll always have.Lack of context-specific innovation. Lots are for urban, high-income settings - not suitable for where the majority of disabled people are.

Okay. In terms of reducing environmental impact, there’s a few things we know need to happen we need to retain value, longer product life, make less. We need to shorten chains, reduce carbon footprint, recycling as much as we can. It seems like , why on earth would we try to address all these things at once? It’s too complex. But, actually, possibly, when you start to drill down on it, a lot of these re the same problems. They could have similar solutions. In particular, we’re interested in whether localisation could help here. Let’s take a look at a common lifecycle for AT is. Often products are developed overseas in high income settings. Shipped to where they’re needed. Often there’s a fitting process, there might be some tracking for that initial period. Often provision models only focus on this section of product life.

What we do know, for most AT, most of its useful life is through repair and maintenance by informal workers, non-specialists, it is not done as well as it could be. In terms of product end of life, it’s not planned, it can’t be taken advantage of it’s very hard to change this in this model because this value chain is so spread out across the world it’s hard to integrate that value chain.

So, an alternative to this could be, you know, if we had local product development this brings the potential for context specific innovation - production could engage and learn from consumers, the actual fitting could be close to production repair, supply chains are shorter. Repair is much easier to achieve if you’ve got the expertise and availability of spare parts, then that can facilitate repair when manufacturers are far away, there’s no benefit to design something with repair in mind but if repair could be part of the business model for a manufacturer then it leads to design that could facilitate that repair if production is occurring in a local setting then there’s the possibility of incorporating repair into the product life. You can’t do that if everything is spread out. There’s also strong relationships between design for repair and design for upgrade and design for disassembly - all these things encourage each other.

Well, that said, there are huge problems that need solving in order to achieve this. Quality assurance is hard to achieve, mass manufacturing has a monopoly. Trying to create economically viable business models is hard in a local setting. There’s a lack of trust in local settings which is a hard thing to overcome.

One example of work we’re doing is with Wazi Vision, Wazi Vision is an eyeglasses company in Uganda, in Uganda all eyeglasses are imported at high cost, there’s not designs for the local consumers everything is designed for this ‘global’ consumer this doesn’t help with the stigma associated with eyeglasses. We’ve been working with Wazi to support local manufacturers. Starting with design for afro-centric design, buying locally it means you can be using the local materials. That consumer engagement is something that global supply chains can’t offer. You can’t achieve everything if these things are made overseas. There has to be more models in the system rather than just the one based on global supply chains. Thanks very much.

**Speaker 2: Professor Asha Hans**

Thank you, Ben. Inclusivity in any of these issues is very important, especially local people. One thing we always question is, who made those decisions? Who helped in the production? There are two questions in the chat-box.

Will you go first Lloyd, have you found an accessible way for people to get on the bus?

**Speaker 4: Lloyd Wright**

Well, thank you. The question is: what about potential conflicts between persons with disabilities and pedestrians in general with cyclists?

Often in cities we put those two infrastructures side by side and we know they’re travelling at different speeds. We addressed this with two solutions: if we allow pedestrians to cross, say, a high traffic or wide road, such as an expressway our solution would be before we get to the outward cycle way, we provide an elevator, or, in many cases a ramp to provide an elevated or underground crossing.

Generally, though, persons with disabilities would prefer not to do that they would prefer to be able to cross a street directly because of the extra effort and the elevator to actually work - so on more residential ways, where its safe to do so, we cross at bray and then it becomes, how do we cross that cycle way in a safe way?

Generally, we provide visual clues to cyclists: signage and road markings and we can also provide even some changes in the texture of the pavement to do that.

I’ll just finish by saying that’s a wonky way to answer your question, but, you know, cyclists and pedestrians are all our friends.

They’re all supporting sustainable mobility. We want to avoid any situation where our friends are in conflict so we do work very hard to make sure cyclists have a safe space, but not at the expense of pedestrians and persons with disabilities. Thank you.

**Speaker 1: Mikaela Patrick**

Thank you Lloyd. I think we’ve lost Asha off the call so I was going to ask Ben if you could answer the question in the chat which is about how we deal with copyright in the work you talked about.

**Speaker: Ben Oldfrey**

It’s an important point. Digital fabrication is the drivers of manufacturing. It’s democratising innovation - you no longer need an expensive R&D department to be able to innovate, design sharing is great. But, profit models are really important. People have a right to be able to protect their designs. It’s a really hard problem - I don’t think its been solved properly - the link between open source design but also profit driven models. I don’t know what the Marrakech treatment is. For accessible print and the other options you bring in, there’s a huge potential there for adaptable designs. If they’re adaptable it means innovation doesn’t have to start all over again.

I am reading another question, How can supply chains complement local production to make AT provision sustainable?

Well, I think it’s identifying what bits are absolutely best done through mass manufacture. There are certain components that don’t need to be customised, therefore, most likely mass manufacture is the best route to producing cheap goods. As long as supply chains are stable enough. Some other work we were doing, one of the gaps is in the lack of regional distribution networks. Often clinics are organising their own supply - no buying power, no efficiency in it. Identifying what should be massed produced then identifying what is best done locally and combining those two things together.

**Speaker 2: Professor Asha Hans**

Thank you so much. I think we just have a couple of seconds left, I wish we had more time to bring in other panelists. One thing that we have to remember, that for example in climate change and biodiversity the use of certain items or supposedly it does much more harm to the climate itself so it’s something that goes against resilience. Mikaela would you like to sum up and say a few words to wrap up?

**Speaker 1: Mikaela Patrick**

I’ll make it brief, but we wanted to say thank you so much to Asha Hans for being our chair today thank you to all our speakers today, it’s so great to hear from all of the presentations from Pakistan, to Kenya and Indonesia, it has made us very excited for the future of this work. We’d like to invite everyone to our side event which is on the 11th November, from 09:30 – 11:00 in the morning and we’ll stream it from our website directly as well as the COP26 YouTube channel directly. We’ll share the link with all the participants today.

We also wanted to say you can read all our inclusive design case studies online which are available at [www.at2030.org](http://www.at2030.org). We’d be delighted to continue the conversation with you! Thanks very much and have a great day. Bye everyone.