

Transcript
Energy 360

Just Transitions: Economic Diversification for Coal Dependent Regions

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Featuring

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Gaylor Montmasson-Clair: We need to stop implementing on the ground, those new opportunities. That's really the only way that we going to convince local workers, local communities, that this is a transition worth taking.

Lisa Hyland: Hello, and welcome to Energy 360, the podcast from the Energy Security and Climate Change Program at CSIS. I'm your host Lisa Hyland. This episode is part of our [Just Transition initiative](#) or JTI, a partnership of CSIS and the Climate Investment Funds. Today's discussion is hosted by Sandeep Pai. Sandeep is the senior research lead at JTI and the lead author of a recent study on how coal phase outs in South African India can also be adjust transitioned for those coal dependent regions. The [study focuses on Mpumalanga in South Africa and Jharkhand in India](#), regions deeply dependent on their coal sector for jobs, local services, social spending, and revenue. In this episode, we explore how these provinces in India and South Africa can diversify their economies away from coal in ways that are just equitable and sustainable. Very pleased to have with us today Gaylor Montmasson-Clair. Gaylor is a senior economist at the trade and industrial policy strategies where he leads work on sustainable growth. And we welcome back to the show, Srestha Banerjee. She is program lead for climate justice and natural resource management at iForest. Here's Sandeep to lead this important discussion.

Sandeep Pai: Thank you, Gaylor and Srestha for joining the Energy 360 podcast. We're really excited to talk to you about this. So let's get started. In the first question. I want to explore Just Transition and coal dependent, emerging economies. And so let's start with Gaylor. You have extensively researched and interacted with different stakeholders on Just Transition in South Africa and in Mpumalanga. What are some of the key priorities of just transition in an emerging economy like South Africa?

Gaylor Montmasson-Clair: Thanks for that. I mean, look, of course the first priority effectively is to truly embark on a climate compatible pathway. And by that I would kind of say let's stop the damage. And I think that's quite important particularly in the context of a global soft economy where we still see quite a strong past dependency and willingness and desire to invest in coal invest in gas and fossil fuel overall. So for me, that's kind of the first priority we need to break that past dependency it's fundamental. And then really when we embark on that transition process and truly adjust transition process, the critical points of view try and achieve the three dimensions of transitional justice first and foremost, of course it's distributed justice. So it's about dealing with the direct loss of jobs, the direct loss of livelihoods that are going to result from just a sector fizzing out or restructuring, and that's going to impact workers and communities directly.

And that's really the first priority in the short term. Linked to that is participatory justice. So it's making sure that the process is inclusive. It's bottom up. It's not just a top-down process and last, but certainly not least is restorative justice. It's how can we write historical wrongs, can we use a transition to redress some of the past inequalities when it comes to energy access ownership, access to equal opportunities, right to a better, healthy environment

and so forth. So for me, these are kind of the proud is really in structuring a Just Transition in the south African context.

Sandeep Pai: Excellent. Yeah, that's a great summary of what are the different principles one has to think about with regards to Just Transition Srestha. If I have to ask you the same question, what are the priorities of Just Transition, you know on the ground in India and in Jharkhand?

Srestha Banerjee: So Sandeep just to add Gaylor has outlined the basic fundamentals of the theoretical underpinnings, as I would say, that Just Transition will need and those remain, I think those are very universal. That is required. What I would like to say, two more things to that which are I think in terms more important in terms of implementation. And one of the two things I would say the first one is I feel that even before we have a Just Transition process set, which essentially means closing down coal mines or closing down coal based power plants and so on and so forth, having the law in place, having the policy in place, even before that, we need to start diversifying the economies of these regions and starting investing in social infrastructure. And why I say this because most of the fossil fuel regions, and particularly when we talk fossil fuel in India, it will be coal as of now, many of these are poor and deprived areas.

And the second thing is these are mono-industry districts. Many of them in the coal heartburn trade, there is the coal mining. There is the coal based power. And any other industry you largely see in this regions are coal dependent. Now the problem that is that unless we have an alternative set ruling in this regions, the challenge will be even to convince people that something of this is coming or can happen, there will be huge resistance because development interventions have been promised to have happened, but nothing actually has happened largely.

So unless they see that there is something, there is an alternative in front of their eyes, or there is a good school there, which is not so based on a coal company or a power company, then they feel that, okay, there can be a system where this can go, but I will have something to live on. So I feel this is fundamental even before we start closing coal mines, or coal based power in this regions, and that will help to bring in the community confidence as well as helping the entire stakeholder engagement or inclusive process that we are talking about. Because otherwise there will be a lot of antagonism that everyone will try to have their bit, and there will be difficult situations on ground.

Sandeep Pai: That's great. Yeah. I'm glad you asked about the implementation challenges and the developmental aspects of this issue. So let's jump into the topic, which you just touched about Srestha, which is economic diversification, right. One of the key pillars of Just Transition is to diversify some of these regions. So recently we published a report called understanding Just Transition in coal dependent communities, case studies from Mpumalanga and Jharkhand. And in our research, what you find that there are many drivers of different sectors that

these places can diversify it. So for example there has potential to diversify into tourism, renewable energy, agriculture et cetera. But these regions obviously face many challenges to move beyond what you described as the mono industry. So first of all, can you explain for our audience, what are some of the key challenges associated with the diversification process? Can you also explain pathways to overcome such challenges? So let's start with Gaylor again, and maybe you can focus on Mpumalanga.

Gaylor Montmasson-Clair: Yeah. So of course, and I think it resonates so much the situation in India, as we are talking about the situation in Mpumalanga really a number of challenges. When we're talking about transitioning to a new economy in diversifying really the regional economy and in Mpumalanga, the first thing really is to add those new opportunities on the ground. Of course we need to implement it's logical when one is talking to a coal miner and telling them, well this job is going to be phased out that they're going to be defensive. If there are no new opportunities on the ground for them, and we're not talking about any job, it has to be at least the same kind of job in terms of pay levels, social security, and so forth. And of course, mines jobs tend to be better than other jobs in South Africa.

They actually for relatively low level of skills pay relatively well, but those alternative jobs do not exist so we asking miners to give up their livelihood for some hypothetical job in the future. Anyone would be defensive about it, that makes perfect sense. So the first challenge is to create those jobs. And it's really fundamental because in the case of Mpumalanga, in the case of South Africa, of course you deal with mono economy towns, you deal with economies that are entirely reliant on coal, and it's very concentrated. You have to understand that the bulk of South Africa coal economy is in two municipalities. It's extremely concentrated. So those municipalities rely entirely on coal effectively, of course, adding to that, high levels of poverty, high levels of unemployment and inequality. We're not even just talking about a transition that is trying to keep the situation and change.

You're trying to improve the situation quite dramatically when it comes to employment, inequality and poverty. Of course, another challenge is also that certainly at the municipal level, there's a huge lack of resources. Municipalities in South Africa and certainly in the coal fields are very weak when it comes to human and financial resources, there's really a need for some strong support, particularly to address the legacy damages and the lack of services that is available in those municipalities. So you do have quite a lot of challenges at play, but at the same time, I would switch this around. They actually are quite a lot of assets that can be leveraged because I would say, "Hey, we know where the problem is." It's one thing we know who needs to be supported. We know where it is you do have in the Mpumalanga region, young and dynamic population, good levels of skills, amazing infrastructure.

Of course, the grid, the electricity infrastructure is there. But beyond that, the roads, the rail there's water there is broadband because it's infrastructure that has been put together for the power plants and the mines. So it's all there.

Great climate for renewable energy. But also agriculture amazing land in Mpumalanga has about 50% of South Africa's best arable land. It's not directly in the coal fields of course, but it's around it. And I think there's an ability to turn the current liabilities, those coal mines, those closing power plants into assets. As we repurpose them, restructure them, do the mining rehabilitation and so forth. So for me, yes, it's a difficult situation. Of course we know it, but there is an ability to this into an asset and explore all those opportunities that you've mentioned, renewable energy, agriculture, tourism, manufacturing of many kinds, steel, batteries, capital equipment are all potential opportunities in Mpumalanga leveraging the existing industrial structure in the province effectively

Sandeep Pai: Excellent. Yeah. That gives some hope, so Srestha let's switch to you the same question. What are the challenges for diversifying away from coal economy for a state like Jharkhand or for any other coal dependent state in India? And can you also explain pathways to overcome such challenges?

Srestha Banerjee: I would actually differentiate a little bit between states like Jharkhand and maybe some other states. For example, if I say, take a state like Tamil Nadu or Maharashtra, which are also coal powered not so heavily dependent like Jharkhand. Now, there are fundamental challenges in these regions for economy diversification. One of the big challenges is how do you go about land? And land is an important issue it's going to play out, in fact, because in coal regions, land acquisition has been one of the biggest reasons of community alienation. Now, the question is that during the process of setting up a new economy, if we have to go buy for the land acquisition, we need to understand how that will play out.

And here I was trying to differentiate between maybe Jharkhand and the state like Maharashtra because Jharkhand there are many areas which are governed by tribal land loss, tenancy issues. Same thing in Chhattisgarh. One of the biggest districts in Chhattisgarh right now, we are working on in is Korba. It is an entirely, Scheduled tribes district basically that means that there are tribal and indigenous population and then rights on land are very specifically defined and how, what can be taken and what cannot. And essentially in very simple terms, what this means for new industries is that land transfer is not so easy in these regions. So now if I now need new land for investment, that is going to be a challenge. And maybe I can just touch on the opportunity here, what Gaylor also emphasized is that they lies in huge opportunity, therefore in redeveloping and repurposing the existing coal mining and all this power plant.

And if I do an overall estimation of India, it is about 0.45 million hectares of land that can be available potentially from coal mining, coal based power, steel and cement industry. And if I just take coal mining and coal based power alone, it is about 0.3 million hectares in India. And some of the districts, it's about 10% of the total geographically, 15% of the total geography, if it's very small district now. So this is the opportunity that we need to think that this is also the barrier. So we really need to think of the land issue. Where do we put up these

industries? The second thing will be the challenge will be infrastructure because in many of these regions, the infrastructure is very, very poor. And there have been studies on industry attractiveness to invest in these regions. And if you see categorically, the states, particularly the old coal regions Chhattisgarh, Jharkhand always they fail very poorly.

It is for a host of reasons. It for what we call ease of doing business, basically in terms of getting clearances, social stability, infrastructure, how the police is functioning and all these issues that there how easy it is to acquire land. But the basic understanding is that these are not very investment friendly regions. So to build the investor's confidence, the infrastructure and mechanisms have to be put in place. And then if I timely response, how can we fix that? One of the biggest opportunities right now to do is invest through public funds in infrastructure building. And then that will be a way for you to attract private investments, because we all know that the entire economy diversification or any industrial restructuring that we need for these regions can not happen through public funds, we'll need private investments, but for private investments to come in, we need that infrastructure and people's confidence to invest in those regions.

So that is something that needs to be taken care of. The current biggest challenge also can be in terms of, and this is one of the big talks right now is going on. Even at the COP that everyone is talking about, we need so many billions of dollars for diversification investment for the just transition. That is very, very true. We need huge amount of finances, but the question is we also need the capacity to use those money and if you do not have the plan and resources capacity in terms of, I mean, human resources. In fact, also to use that money, then it is not going to work how much money you are pumping it.

And if I take very, very small examples of development interventions that has happened in these regions, and we have been working in fact, one of the biggest things with respect to district mineral foundation fund, which is a very place-based investment. Money is not being used today for the very basic reason, because districts do not have the capacity to plan and invest. So unless we build that capacity locally and regionally to invest that fund, plan, monitor, then it can be a wastage. And if the fear is that I feel if there is a wastage, then it will take away the confidence and investment. So we need to think of these kinds of things as actually the barriers, there are opportunities too, they're very, very easily fixable things, but the point is we need to be wary of this before we talk of how can we go about it?

Sandeep Pai:

That's great. Thank you both for really laying out the challenges and opportunity. Now, next, I want to get into the role of some key actors here, right? Governments, private sector, and coal companies. So let's start with Srestha again this time in India there are governments, private companies and state-owned companies like Coal India, are they actively trying to diversify away from coal based businesses in these states? And how can these actors play a more ambitious role if they are trying to diversify them, do you think they can

play a more ambitious role in facilitating the diversification process, which has a focus on just transition.

Srestha Banerjee:

Right. So some of the thing that we have been beyond our witnessing is that first is that there is an appetite for say, Coal India Limited the biggest producer or NTPC, which is the biggest power generator in all the public sector. There is a huge appetite now, right now, for them to really, to diversify their own portfolio. Like for example, Coal India Limited has announced about \$1.8 billion to invest in solar, right by 2024 in April this year, they have announced like establishment of two wholly owned subsidiaries to manufacture solar PVs, as well as to invest in RD projects. Same announcements are coming from a NTPC, even for that matter private sectors who are being active in this area, such as you'll see Reliance, you see Adani, they're also diversifying their investments in renewable energy. So the industry itself is ripe.

They know that diversification is important, but the question is whether that diversification is helping in the coal regions. Now, if we look at where these investments are happening, there is a disjoint between the two. The investments are all happening through any of them in the Southern and Western regions of India. There are few states which have a little overlap, there is some overlap in Maharashtra, there is some overlap in Madhya Pradesh, but if I look today at the biggest renewable energy investments and diversification, that it is happening with the portfolio of this companies, and then the coal mining regions are the main coal belt is left out. So I feel that this needs to be recognized and there can be ways of doing it. Today we are talking of, if you look at the 2030 target the PM has now announced, which essentially will mean that we need a huge manufacturing need of battery storage, which Nithio is also talking of, right?

We'll need huge manufacturing of many other things. Now, those kinds of investments can happen in this regions and the companies can play active role. So I would say yes, there are huge opportunities, but the investments currently that are happening has a different geography. So that is my biggest question, but definitely they will play a role because they are there. And in fact, there has been discussions around, I don't want to be an advocate for it, but the question is that can Coal India Limited tomorrow stopped investing in Iron ore mining, for example, which often times is in the same state, right? Because you really need that for infrastructure development that has its own set of issues. But I'm saying even in some other mining, if this company was diversified, which gave me one of the easiest way for them to move, because skillsets are very similar. So that can be another way of creating opportunities, but I'm very cautious that I do not want to advocate for that, but yes, that can be something that can be thought of too

Sandeep Pai:

Could you also talk a little bit about the role of governments. Are they actively trying to diversify it and if they are?

Srestha Banerjee: So governments so far, there is... This is very regional for how well governments are going about the diversification. And I can only comment at the government. I have looked closely to their industrial diversification policies. For example, Jharkhand or Chhattisgarh in some way I have been looking at Odisha as well. Now, if I see these governments are trying to diversify the economy, which is mostly around in fact, the primary sector, which is a lot based on agriculture, , and all that resources. Now this is something we also need to be careful about not taking this as a general trend, because the current government in Jharkhand and the current government in Chhattisgarh the CMs have a very personal tie to these kinds of priorities. So I would not say that they... If the political landscape changes the same priorities will remain, no, that was not the case of the earlier economic diversification, Jharkhand had the earliest team had very different priorities.

So, but currently the situation is yes, there is a recognition that the primary sector, such as agriculture or forest-based resources are untapped, and they have to be tapped. In fact Chhattisgarh is going in a lot of promoting RE, investments, IT investments, things like that. But that will require a very different kind of skill sets. Then the kind of skill sets people in the coal regions have. So that will require a lot of up-skilling, but yes, governments are doing it in their own ways, but it is very state-specific.

Sandeep Pai: Thank you Srestha. So next let's switch to Gaylor and talk about Mpumalanga and we know that Eskom is trying to repurpose and repower their power plants and Mpumalanga government has the green cluster policy, but again, they play a more ambitious role in facilitating, a Just Transition.

Gaylor Montmasson-Clair: I think so, yes. I mean coming out of government in South Africa, we have very mixed messages, and I think that's quite important to recon with that fact that there is no consensus in terms of the way forward, as you mentioned Eskom over the last few years has done an 180 degree turn around, really looking at transitioning and made some really important announcement in the repurposing of their facilities even looking at turning the Komati power station into a manufacturing facility for mini grids, for instance. And then of course looking at other opportunities as well, you mentioned, I think at the regional level, the Mpumalanga green cluster agency, that's looking to diversify the economy and that's also quite a really important opportunity that's being explored. At national level, there's still some dichotomy, some players pushing for a persistence of the coal economy and if not coal then fossil fuels.

Whereas of course, all the corners are really looking at the transition on more seriously. And I think that's where we be sending mixed signals domestically, but also problematically, we're sending mixed signals internationally and that's of course a problem because on the one hand, we're saying "no, we are serious about this. We're going to decarbonize. We want to achieve a Just Transition." But on the other, we are saying, well the only way to achieve a just transition is to basically go slow about it and keep coal and keep fossil fuel. And I think that's a big problem that we have to deal with in the South African context. And I think

we have to reconcile with that. We also getting quite mixed messages from the private sector in the country. Yes. If you look at the five leading companies, coal mining companies in the country they are controlled by 80% of local mining, they've all made some sort of commitment.

Some have put caps on their coal investments. That's the case of Exxaro road as the case of Glencore, that's even the case of Sasol. And then the other two Anglo-American and South 32 have basically been selling their assets, but let's look at that as well. They selling the assets to much smaller groups, local groups. Yes. South African owned groups, but will they have the ability to address the liabilities to rehabilitate, to actually ensure Just Transition going forward is a question that remains to be answered. So we are seeing some really positive dynamics at every level, but there's certainly no consensus in the South African context about the way to go about how to diversify, what should we diversify? We're having a very, sometimes I felt very narrow thinking about diversification in Mpumalanga.

Most people talk about, "oh, we need to move from coal to renewable energy." And for me, that's a very narrow thinking. Our energy system, our electricity system needs to move from coal to renewable energy, but the regional economy doesn't have to. Renewable energy will be a component of that, of course, and we should maximize that component, but it's only a component. And I think there's a bit of a narrow thinking from many players sometimes by design to try and limit the transition. And I think that's where we can be a lot more ambitious really in really providing that forward-looking vision for Mpumalanga as a province, for Nelspruit as municipalities for tomorrow and I think that's where government private sector, but of course also workers in the labor movement and civil society can play a much stronger role going forward.

Sandeep Pai:

I have a quick follow-up, Gaylor. Isn't that what green cluster entity is trying to do to bring together and create this larger industrial policies, if that is correct. Could you speak briefly about what that cluster entity is facing a challenge? I asked this because something similar might happen in India going forward. So it would be a very good lesson for other emerging economies as well.

Gaylor Montmasson-Clair: Yeah. So the Mpumalanga green cluster agency, which is being set up by the provincial government of Mpumalanga it's in the name it's trying to promote a green economy. And it's trying to do that by bringing government, the private sector, research and academia, but also the social partners of the workers and communities together. The challenge first is that Mpumalanga is quite a diversified region. When you're talking about it, we are talking about the coal fields here, but that's one part of Mpumalanga. You've got two municipalities, as I've mentioned that rely on coal, that's in the Western part of the province. Then you've got the Eastern part of the province. That's the famous Kruger National Park, tourist orientated, that's your resource management. And you've got the central part, it's a lot more around forestry, agriculture, some industrial activities.

So there's quite a lot of diversity first in the province already that that needs to be addressed. Another challenge I've mentioned, of course, is the lack of resources and I think we touched about it in the Indian context as well. How can we implement when there's a lack of human and financial resources at the local level, it's really odd. You can throw money at the problem, but if you have no capacity to implement on the ground, that's not really going to help you very much. And I think it's also difficult to break that past dependency that I was also talking in the introduction about. We have economies that are very dependent on the current model. So it's going to take some time to create the opportunity to convince of the opportunity. And then more importantly, to show that opportunity on the ground that's really what we need.

We need to start implementing on the ground, those new opportunities. That's really the only way that we going to convince local workers, local communities, that this is a tradition worth staking. Otherwise we are just selling a dream selling a unicorn and we're not implementing it. So it's really about implementing this on the ground. The cluster is still fledging, still being set up. It's going to take some time, but certainly I think we have high ambition about the cluster is it's based on a model of a similar cluster that was established in the Western Cape province of South Africa around Cape town and the rest of the province, which has been very successful of course, very different contexts, but the cluster approach has been very successful in South Africa, it has been very successful in other contexts as well and other countries, and can really help capitalize and foster investment in the green economy going forward.

Sandeep Pai:

That's great. Yeah, we covered the domestic actors mainly like, I mean, some of the domestic actors, like state-owned coal companies, private sector, also the state governments, but let's talk a little bit about the international actors, right. There is a lot of talk about Just Transition even during the current co-op. And generally people are using the term more and more that there's a lot of different agencies that are trying to promote the principles of Just Transition. So let's start with Srestha this time. And I was wondering how can the international community support coal dependent states like Jharkhand in diversifying their economy?

Srestha Banerjee:

Right now the conversation, the money that is being asked for, I feel is more about at least in Indian terms. I'm just saying it is more about looking for the energy transition and less about the Just Transition that has been discussed, because the quantification on what is the amount required for Just Transition is not there. Now, the international agencies, I feel can play a big role because the Canada prime minister announced that there will be funding available for Just Transition for developing countries. And the funds investment will happen through climate investment funds, right? So definitely we need money that is no doubt about it. And there can be a for multiple reasons this money is required. Now, one of the fundamental thing that this money can be used for, I feel is important, it is very little discussed is for redevelopment of this land.

And because you know, the old coal mining regions, particularly we have done a case study of Jharkhand and Jharkhand is a classic case where there are lots of abandoned mines. Now this is a huge brownfield area. And if you're looking at some of the old power plant regions, these in many industries are left just as Brownfield. There is no way of ensuring how to take down the structures, how to repurpose that land, how to redevelop that land. We do not have the process very well documented. If I only look at the coal mines, the biggest problem we have is who is going to close these mines. It is a huge amount of investment till date, public sector or private sector or government, no one has taken charge of it. So I feel if we are talking of this theoretically this amount of land will be available for industrial restructuring.

Then this land needs to be redeveloped in the first place. And we need investments for that. So I feel here is something that the international community can take a big role, because I personally know that this is not something which is going to come easy from the government here or the private sector or the public sector that has not happened in years of history. So this is where I think that is important. It can be important in other situations, but there is already fundings have been there and there are local level resources which the international community can top up on in terms of building... Quickly boosting social infrastructure as I was saying because that is something which is an immediate need. Even before we start transitioning. Now, there are many government schemes, programs, localized funds like district mineral foundation that is fine.

And those has a huge opportunity too, but the accelerated pace now we need for this transition here, I think that kind of kickstart will be important. And the other reason I feel, and it is a little sorry state of affairs that we are saying this, but at least having international financing in this kinds of things, we'll have some accountability to accelerate the process because public funds get into this dilly-dally mode of being spent. So if we really want accelerated process in these areas, maybe they're also international financing can help. And then they don't even know many, many issues that began, but that just putting out the priorities right now, which is less discussed.

Sandeep Pai: Thank you. How can the international community support coal dependent states like Mpumalanga in diversifying their economies?

Gaylor Montmasson-Clair: Thanks Sandeep for that, very topical question. Just at the cup 26, very much a landmark deal has been announced for South Africa \$8.5 billion to be provided by France, Germany the UK and US collaboration with the EU to support South Africa's transition. And a lot of that is expected to be directed at Mpumalanga. Of course we don't know yet all the details and the devil is in the details. I think international finance is tremendously important if it is done the right way. Of course South Africa of course Mpumalanga need the support and I think that has been made over and over as a point. But I guess the question I'll ask is it new finance? Is it additional finance?

Is it actually contributing to addressing the global North climate debt and really meaningfully supporting a province like Mpumalanga. What are the terms and conditions? Are we talking about grants or at least extremely concessional finance, what is being financed? So what kind of investments are we talking about is really important. And we need to rejuvenate, diversify the region. We need significant investment into the province and into the rest of the country. So let's talk about the kind of investments that are going to be supported. What kind of sectors, what kind of facilities, what kind of programs. And of course we will benefit. What kind of money are we talking about? Is that going to reach the people on the ground? Is that going to create jobs? And that's, how are we going to judge if that climate finance is actually effective, and all that international finance effectively put to good use, if you want, if it is, I think certainly in the case of South Africa and the case of Mpumalanga there's, I'd say three plus one pots of money that we need.

Why do I say three plus one? The first pot, of course, it's climate finance, as we need significant amounts of funding to achieve our climate goals, both from a mitigation perspective and adaptation perspective. And the bulk of that in South Africa is in Mpumalanga. The bulk of our emissions are in Mpumalanga from our power stations, but also from our petrochemical complex in Sekonda. Adaptation of coal tremendously important in many parts of the country, but certainly in Mpumalanga when it comes to really adapting to this climate impact. But I would argue that the second pot of money that's required, which is a Just Transition pot of money, which is quite different. Although there is some overlap it's quite different from just financing climate action. And we need that bit of money to finance the new investment, to finance the social progress interventions, to make sure that really we invest in new economic sectors, new economic activities that we support local government, that we support the municipalities, the province in getting the job done.

And that's for me is really important. Then there's a third pot of money, which is more about supporting the state when it comes to fiscal reform. Things like social infrastructure, social fabric, the social protection that of course needs to happen more systemic level at the national level, but also through the different fields of government. And that needs to be supported in a particular way. Here you're not talking about investment into a facility or a new plant, or a new farm. No you're talking about supporting the states and actually developing. And I think that's quite important, certainly in the context of South Africa and Mpumalanga given the context that we've highlighted, high levels of poverty, inequality, and climate. And these are my three main pots of money, but of course, in the context of South Africa and in Mpumalanga we get to three plus one, which is the Eskom pot of money that is required, the power utility we have a power utility in South Africa, which is in a state of emergency.

That's been so for quite some time now, and it needs to be refinanced effectively. We could argue, it has little to do with climate change or just transition. But effectively if our utility fails, let alone, we will not have energy security we will not going to achieve any of our goals. So, I would argue that

when it comes to international support these are really the sort of four pots of money that are required. The four areas where we can see a need for international support, the deal that was announced at COP26 is an important first step towards that of course, it will be judged on its implementation on its deliver. And I think it does though provide a framework for increased collaboration between South Africa and the global South and the countries in the global North.

Sandeep Pai:

Thank you, both of you for this really fascinating conversation.

Lisa Hyland:

Thanks to Sandeep, Gaylord and Srestha for that exploration of the opportunities and challenges for places like India and South Africa. As they seek new pathways away from coal. I highly recommend taking a look at our report. [Understanding Just Transitions in Coal Dependent Communities](#), available on the Just Transition initiative website. As always, you can find more episodes of Energy 360, wherever you listen to podcasts and at CSIS.org. As always follow us on Twitter for more updates at @CSISEnergy. And thanks for listening.