IPBA ARBITRATION DAY: MUMBAI

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Climate Change and Arbitration

MODERATOR

Raj Panchmatia, IPBA Arbitration Day Host Committee Member, Mumbai

SPEAKERS

Teck Wee Tiong, Partner, Wong Partnership LLC

Dora Grunwald, Partner, Osborne Partners, Dubai

Nicholas Peacock, Independent Arbitrator and Advocate, London

Lin Shumin, Director, Drew & Napier, Singapore

RAJ PANCHMATIA: Good afternoon, everyone and thank you for joining us in the afternoon today, but we know we are cutting out tea break a little short. But maybe you can pick up your teas and come on the table, that will be great, the idea is to keep it onto the time as we don't want to be delayed for the next session as well, which is an interesting debate that's going to be happening and everybody's looking forward to it, so we don't want to hold you back too much as well. We have a very interesting session today, "Climate Change and Arbitration." This is one of the kind sessions that I am doing for sure, but I have experts who have been advising and doing these sessions regularly, so I'm going to defer to them for a lot of the answers, and my job is very easy to only ask questions, so I will only ask questions. But as we all know environment, ESG is becoming more and more important in international transactions, international trade, and we're seeing the importance of it on the daily basis. There are a lot of frameworks, a lot of policies that are coming around ESG, including in the Indian context, the Securities Exchange Board of India has come out with an ESG policy. So, we're seeing a lot of this coming and a lot of credits being granted and given for the ESG purposes, but to discuss all of this we have all these seniors and experts in the field.

So, I'll start introducing you from my immediate left. Not my immediate, my far left, Shumin Lin. She's a Partner with Drew & Napier. She again specializes on the ESG related matters. We have Dora. She's in the centre. She actually is the name on the ESG and Arbitration circuit in the European market. She's a Partner with Osborne Partners and we have the benefit of listening to her views as well. We have Nicholas Peacock, Barrister and an Arbitrator from Peacock Arbitration Centre... Chamber and we have Tiong Teck Wee, Partner with Wong Partnership who has very kindly agreed to join this session on a very, very short notice of less than 24 hours. So, thank you for joining on this session.

Before I ask the question to my panelists, I have one question for the audience, as to how many of you have encountered ESG or climate consideration in your own arbitration matters? Two, three, five. Okay, so we have some participants who have actually had this issue. So, maybe Nick I'll probably ask you the first question, Nick. Could you start off by discussing how climate related obligations, whether arising from treaties, soft law or corporate commitments are beginning to shape the content of the dispute that comes to the arbitration?

NICHOLAS PEACOCK: Fantastic. Yes. Great. Well, thank you. Thank you, Raj and thank you to the IPBA for the very kind invitation to speak at this event. Delighted to be here. So, yeah that's a big topic, I think. Where does climate change fit into arbitration and how's it arising? I'm just going to give some helicopter thoughts to try and frame the discussion we're going to have on this panel and I just start off by echoing a bit of something Lucy Reed said earlier and what she said to me yesterday, arbitration is not going to solve climate change, that

I'm afraid, is probably true. We are, after all, dispute resolution lawyers who handle disputes arising out of agreements and maybe treaties. But I think it's going to permeate a lot of what we do, and I think we didn't see many hands just now about people who are doing arbitration at the moment where ESG and climate change is impacting, but I think possibly it is already more than you think it is, at least on my framework. And if it isn't now, it will be soon because I think this is going to start to encroach a lot of what we do, so I'm just going to give some thoughts under a few headings, four headings, about how we might see climate related obligations impacting arbitration. So heading one, think about how it's going to change State's obligations to their citizens. So, governments are now responding to calls from their citizens to tackle manmade climate change that leads to changes in their activity, in their actions, in their policies and regulations. There's been an interesting recent example of this in the U.K, and there's a Supreme Court decision in June of last year about a planning permission that was granted to expand an oil production site in the southeast of England. And the Supreme Court reversed that permission, held it was unlawful because the government's analysis in granting approval failed to assess the downstream that is, scope three greenhouse gas emissions that would inevitably arise from burning the oil produced from the site. It's just an example of the way the government's obligations towards their citizens are shifting. They're changing. Now, that itself is a litigation topic. You're likely to be suing your own government, in your own courts. So, that's heading one, heading one.

Heading two, States obligations to non-citizens, to investors, frankly, in our parlance. So, governments being accountable not to citizens within their country, but to outside individuals or companies, aka investors, who suffer harm in breach of protections promised to them under investment treaties or other Bilateral and Multilateral Treaties where the government's actions are part of response to climate change. I'm going to leave others on the panel to talk about claims we have seen in this area where investors say they've been harmed by government activities which are, I think, related to climate change because they're related to energy transition apart from anything else. But also think about what other claims could come in the future? What about investors who claim they're not harmed by actions a government made in response to climate change, such as newer hurdles for permissions? What about investors say they're harmed by governments lack of action to tackle climate change? What about investors who built a seaside resort too close to the water's edge and rising sea levels make that resort unusable or part of the world where desertification starts to impact an investment they've made. So, that's another heading, those State obligations to citizens. State obligations to investors. How about State obligations to each other? What about claims under treaties and customer international law between States in relation to climate change? So, for example, low

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lying islands, which are lost as a result of rising sea level, or indeed other places that become uninhabitable, and there'll be a bit more to say about that later.

So, that's three headings. I think I said four. There might actually be five. Businesses' obligations to each other. Now we're not yet in a world where Company A says to Company B, you owe me a duty to address climate change, not to say we might not get there, actually, under some legal theories, but in the context of the State responses I've been talking about, this necessarily impacts B2B relations now and increasingly going forwards, I think. When there's a cancellation of an energy project such as the one I've mentioned due to a failure of government permissions or new government permissions. That is a headline. And people will nod along and say, yep, great, oil company not granted permission to dig up in my backfield, but that has a huge knock on effect. Of course, we know this as commercial lawyers fall out for that company, for its investors, for its lenders, for its suppliers, for any customers got on the hook. So, those sorts of actions are B2B, they're going to be a lot of claims coming out of government responses. And I think also going forward, that sort of uncertainty will create more complexity in B2B relationships when you're being obliged by the government to overcome new obstacles to approvals when you're being required to use emerging tech because the old tech is being outlawed, that creates a whole lot of risk and how a business is going to allocate that risk of a shifting regulatory sphere or of an uncertain technological future. That's four.

Okay, bonus five, is businesses obligations to citizens. There's a nice emerging area, probably not one for us arbitration lawyers. I was fascinated there's some interesting cases in the Netherlands, you may have read about where friends of the Earth brought a claim against Shell, and in 2021, The Hague court ruled that Shell had to reduce its carbon emissions by 45% to comply with the Paris Agreement, which was pretty startling. Private companies sued for failure to comply with the Paris Agreement. Well, that decision was reversed, in fact, by The Hague Court of Appeal, which said it could not establish that Shell had a social standard of care to reduce its emissions by 45% or any other amount, even though it agreed the company had an obligation to citizens to limit emissions. There's an interesting tale to that pronouncement. So that's, again a really fascinating area, but we're contract lawyers. We're treaty lawyers. We're not likely to be seeing class actions against private companies, at least in our arbitration practices. But as I've said, I think there are at least four good headings where climate change is already impacting relationships that are going to give rise to Arbitration. And if they're not already, doing so now. They certainly will in all of our futures.

RAJ PANCHMATIA: Thank you, Nick. This was great. Teck Wee, coming to you Teck, are we seeing Investment Treaty claims emerge from the government climate policies and, for instance, disputes streaming from carbon transition measures or energy policy shifts?

TECK WEE TIONG: Yeah, we're definitely seeing investor-state cases brought on the back of climate change policies. I wouldn't call it emerging because they've been going on for minimally the last 15 years, the earliest case against Spain's feed-in tariff incentives for the production of solar energy. Those are the most famous Investor-State cases happen. The first of which I think, if I remember correctly, was filed in the late 2000s around 2009. So, when we talk about Investor-State cases involving climate change, the most famous ones that come to mind are the ones again in Spain, which, as I mentioned relate to the withdrawal of subsidies for feed-in tariffs to encourage solar energy production. To date, 51 arbitrations have been brought against Spain. Not all of them have gone beyond anything more than a Notice of Dispute or a Statement of Claim. Most of them have been successfully settled and withdrawn. But at least enough of them have gone to a final award on the merits. And Spain is now facing something close to $2 billion worth of damages for trying to withdraw those feed-in tariffs. But to be clear, those cases are not... I personally wouldn't consider them climate change related. Investor-State arbitrations *per se* because to me and maybe you can call me a tree hugger, but the more sort of pure bred climate change related arbitrations, I believe, are those where States attempt to introduce climate change policy, which result in Investor-State cases. So, for instance, RWE and are Netherlands, Uniper Netherlands, relating to the Dutch Coal Ban Act, Rockhopper in Italy relating to Ban of offshore oil exploration in 2016. Those to me are more or even the case against Mauritius where someone tried to apply for permit to build a resort in a UNESCO World Heritage site and got rejected those of me are more what I would consider the pure climate change related Investor-State Arbitrations, where the dispute actually arises out of policies that the government tries to implement, to address climate change. But back to the question. Yes, indeed, there has been a long history of these climate change related investor-state treaty arbitrations. I think what is more interesting, which I think the panel will discuss later on is the future of these types of Investors-State Treaty Arbitrations especially given the various rulings that have been issued by international Tribunals, which I think Nick will cover in some part on State's obligations in relation to climate change. Right. So, other than the ICJ advisory opinion that we are all familiar with there are at least three others it laws opinion on marine pollution. The Inter-American Court of Human Rights. The European Court of Human Rights and there might be more in future as well. So, we can talk a bit more about that later on.

RAJ PANCHMATIA: Thank you Teck Wee. Shumin, coming to you and what kinds of disputes do you expect to see in the voluntary carbon credit market?

LIN SHUMIN: So, in Singapore, we have a voluntary carbon market. There are two kinds. One are the compulsory kinds it's basically what the government says, you have to meet certain levels and the voluntary kind as well. It's not mandatory, but the companies decide, well, I want to be a good corporate social actor. So, we have in Singapore voluntary carbon market where you can buy and sell carbon credits. There are three kinds of claims that we see. The first is, disputes over greenwashing. So, greenwashing is basically you make misleading or exaggerated claims. The company says, well, I'm helping the environment. I'm carbon neutral but they haven't, they've bought low quality carbon credits that don't really help anyone. Obviously, all of us litigators in the room were thinking misrepresentation. There are also regulatory risks, because in Singapore we have the Consumer Protection Fair Trading Act that says it's unfair practice to deceive a consumer. In India what I understand is under the Indian Consumer Protection Act, Indian consumers can sue for false or misleading acts. So greenwashing, you have exposure from the civil front also is a statutory claim. So, if there is exaggeration in greenwashing, several disputes we see arise.

First, customers sue from misrepresentation.

Second, if shareholders have invested on the basis of certain representations, that might be misrepresentation as well, or breach of undertakings or written representations that get worked into the contract.

Third, is a bit of an interesting one the carbon credits that actually brokers out there, so, the companies may sue the carbon brokers because they've been told they're buying good quality carbon credits, but actually the low integrity.

Greenwashing is the first. The second kind of claims, that we might see are disputes where the carbon registry rules change or credits are revoked. So, how do we know whether carbon credit is legitimate? It's worth something. There are registries out there that review the project, approve it, issue carbon credits. The main one is Vera. It's an NPO. It's based in DC. India, I know has recently launched its own carbon credit trading scheme as well. So, the problem is when these registries, they change the rules or they can even revoke credits that were previously issued. And so, the buyers... you've paid for these credits, suddenly these credits are not worth very much at all. Obviously, you suffer loss as a result in 2023, there are four certain project types. So, it's a real problem that we're talking about. What does the buyer do? Breach of contract or the buyer can sue for breach of contract. The credits are now invalid about good credits are not there or they may bring a claim against the registry for changing the rules unfairly, so, that's the second bucket of claims that we see arising.

The third is, disputes over forward contracts. So basically, the carbon credits arise for projects like deforestation. Deforestation in a particular country, you can buy the carbon credits in advance before they even exist. So, you're pre ordering the emission savings. But like Nick said just now, things can go wrong. The forest you're supposed to restore, the forest that gets delayed, for example, because the governmental action or you're trying to plant some trees and a wildfire comes along, and so the Seller can't deliver on the promised credits under the forward contract. Here we're in the realm of a classic contractual dispute, the Buyer might sue for non-delivery or ask for replacement credits. Issues that arise then ae obviously, is there a breach where did the contract allocate the risk? Is this a *force majeure* event, is the Purchaser or is either party or evil to terminate the contract and get a refund. So, these are the three buckets of disputes that we see arising from the voluntary carbon market.

TECK WEE TIONG: Sorry, I just want to bring a very quick point. The UNIDROIT is actually currently working on a draft set of principles surrounding voluntary carbon credits relating to the proprietary nature of carbon credits including detailed rules on when they can be viewed, who can revoke them, what is the governing law of carbon credits? So, for those of you private international law afficionados where this is your thing, please do take a look at the draft principles.

RAJ PANCHMATIA: Thank you, Shumin, thank you, Teck Wee. Dora, I'm going to come to you now and of course, I'll first take your views on the European perspective, and then maybe we can add on the Asian perspective. How do the states in Europe try to manage potential disputes arising from the transition away from fossil fuel?

DORA GRUNWALD: Yes, thank you. So, in Europe, we have three pillared approaches to de-carbonization, which is, I think, quite similar in other parts of the world as well. So, we first promoted renewables pretty aggressively. We put in place a carbon trading market such as the one that truly was talking about the European emission trading scheme and we also imposed CO_2 targets on the automotive sector we actually at Osborne Partners worked on all three strengths of this we've been involved in a lot of renewables disputes. But also in providing economic policy advice in relation to the EU ETS and to the automotive sector. So the short answer is that we weren't doing very well to avoid disputes, especially in the beginning. We all know that there have been a huge number of renewable disputes brought against our member states. But it may be less well known that we also, by providing priority dispatch to renewables we disadvantaged our fossil fuel operators, obviously on purpose, but they complained. So initially, we had many complaints starting with a landmark case of ***PreussenElectra versus Germany*** where PreussenElectra which was a conventional utility complained that the German law imposing the requirement of buying renewables credits at above market prices was unlawful State aid. This was dismissed by the Court of Justice, and this basically gave rise to a legitimate priority dispatch for renewables across all of Europe. Nevertheless, there were lots of other State aid cases by fossil fuel investors going to the European Commission. They were all lost. But at least sometimes they managed to influence the renewable schemes and the generosity of the renewable schemes.

Now, going forward. Now we are in, I would say, a second stage of transition now we are directly imposing phase out. For example, Cold phase out and directly imposing restrictions on our fossil fuel generators. Again the different member States are pursuing different approaches. So, for example, Germany compensates. You may know that in order to close its lignite plants, it offered around €4 Billion to RWE and I think LIAC. And it also has auctions where the coal operators can bid for an amount that they will be willing to take to shut down their plants. There are other examples. France, for example, and Italy, they regulate, but they provide advance notice. So, long notice for the operators to phase out their operations. The Netherlands also try to introduce a Carbon Phase Out Act and we mentioned that there were litigations brought against them by RWE and Uniper, those were both lost. And Tribunals found that the Netherlands had a legitimate right to regulate in the name of carbon reduction policy.

Italy, basically left the European... the Energy Charter Treaty to shield itself from future litigation and again also introduced the long phase out of Coal. Actually, have phased it out, I think by 2025. So Poland, Poland, where Unions are very strong, had a negotiated exit strategy. They will phase out coal for example in a much longer period of time by 2047 and there are all sorts of agreements with the workers of retraining them and so and so. We learned a lot from the beginning. We are trying to provide advanced notice. We negotiate, we compensate, but there are still disputes emerging.

TECK WEE TIONG: I think in Asia, I think in Asia, we are still sort of... First of all, I think it's a bit difficult to talk about Asia in a homogeneous fashion. So, maybe I'll just limit my comments to ASEAN in general, Southeast Asia. I think in ASEAN; we're still very much focused on the energy transition part of it rather than the disputes arising out of energy transition part of it there have been a lot of efforts in trying to clean up energy sources within the ASEAN region. So, for instance, investment in renewables within the ASEAN region has gone four fold in the last ten years funnily enough, very similar to India. India's investments in renewals has grown about from $100 per capita, 100 USD per capita to 400 per capita in the last ten years. Same with ASEAN. But I think the difficulty with ASEAN in the energy transition is that there is still very much a very heavy reliance. It's twofold. The first is that there's a very heavy reliance on coal still. So, for instance, countries like Indonesia still have not hit peak coal usage and peak coal usage is only expected to happen in 2035. So, then one wonder how that sits with the ultimate stated goal of being carbon neutral by 2050. So, there are difficulties with the energy transition plan in ASEAN countries.

The second is also the ASEAN is at the end of the day a net import of energy, roughly 40% of energy that ASEAN uses is being imported. So, that puts ASEAN basically, in terms of energy transition, at the mercy of the availability of clean and green and renewable sources of energy. Some of the other things that ASEAN is trying to do to deal with energy transition other than to look at renewables is to explore things like hydrogen, nuclear energy even. So, in Singapore, I'm not sure how we are going to do it, but apparently the government is looking at new nuclear energy. Any of you who have been to Singapore will know how incredibly small if I'm not sure where we will put this nuclear reactor. So, there are difficulties with energy transition in the ASEAN region. And I think until we get some sort of steady momentum going we are not likely to see, we're not likely to see much attention being paid to how we manage those disputes insofar as the disputes are rising out of investment projects. So far, those have tended to be dealt on an *ad hoc* basis based on contractual provisions, based on existing laws and regulations, and so on and so forth. I think the situation is to be contrasted to Europe, where you have sort of, I wouldn't call it homogeneous, but at least you have an economic block. You have sort of a central authority like European Court of Human Rights or the European Energy Commission, who may perhaps be able to provide some guidance or some sort of harmonious guidance or coherent guidance in terms of how such disputes are to be resolved, whereas I think in ASEAN it's still very much again on an *ad hoc* basis, depending on where you bring it, the forum that you bring the disputes in, and so on.

RAJ PANCHMATIA: Thank you, Teck Wee. Nick, coming to you, many people have read reports of landmark advisory opinion issued by the ICJ in July 2025 on State's obligation to prevent climate harm and legal consequences should they fail to do so. Can you give us a brief overview of that opinion and also the impact you think it could have on future arbitrations and claim concerning climate change?

NICHOLAS PEACOCK: Yes. Now, there are two ways that conferences like this are beneficial and educational. One is, that you come and sit in the audience and hear people from the stage inform you about things you don't already know. The other is that you get asked to speak on a panel and you see a headline that's relevant to the topic your panel is going to cover. And you think to yourself, I ought to read that. So you put your hand up to a speaker body on the panel and thereby force yourself to read something that you know is going to be long, quite tough to get through, but will do you good. And so now I'm going to share that effort with all of you and give you... I didn't get ChatGPT who knows what it would have made of it. The

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judgment is in English and French. So even though it looks really long, it's only half as long as you think it is.

RAJ PANCHMATIA: And you are getting it for free?

NICHOLAS PEACOCK: Well, almost for free and you might still want to go and read it yourself, but anyway, I'm going to give you the short tutorial on this really, really interesting and really quite significant ICJ advisory opinion that you may have seen in a headline in GAR in July of this year. So, what was it, April 2023 the UN General Assembly, at the request of Vanuatu submitted two questions to the ICJ.

First question. What are the obligations of States under international law to ensure the protection of the climate system and other parts of the environment from anthropogenic emissions of greenhouse gases? So State to State obligations.

Question two. What are the legal obligations? What are the legal consequences under those obligations for States where they, by their acts and emissions, have caused significant harm to the climate system? So two questions submitted. There was then a very lengthy proceeding over 100, or around 100 interested States took part. Many, many organizations, many, many law firms. The ICJ then went ahead and reviewed what are considered to be most relevant, not all, but the most relevant international law, including UN Charter, Climate Change Treaties, UN Conventional law of the Sea, other environmental treaties and customary law. And at the end of all this process, in July 2025, an advisory opinion popped out. Now I'll give you the headline, then I'll give you some highlights. The headline is, States have binding obligations under treaties and customary international law to prevent climate harm and failure to do so could result in having to pay compensation or make other form of restitution to whom, indeed. Well, we'll come on to that... to each other.

So, some highlights for you. Customary duty to prevent significant harm to the environment also applies with respect to the climate system and other parts of the environment. The obligation of States is to employ all means reasonably available to them. So it prevents harm. So, climate is part of environment. There's a duty to prevent harm to the environment. As also a duty on Sate to cooperate, which comes out of the charter of the UN for a start. And under customary international law and the duty to cooperate for the protection of the environment forms part of customary international law and can also serve as a guiding principle for the interpretation of other rules, so says the ICJ.

The Climate Change Treaty framework comprises three legally binding instruments concluded by States to address climate change. i.e., the UN Framework on Convention on Climate Change of 1992, Kyoto Protocol '97 and the Paris Agreement of 2015. Human Rights law is also relevant, says the ICJ. The court considered the full enjoyment of Human Rights cannot be insured without protection of the climate system and other parts of the environment. In order to guarantee the effective enjoyment of Human Rights, States must take measures to protect the climate system and other part of the environment. These measures may include taking, mitigation and adaptation measures with due account given to protection of Human Rights the adoption of standards and legislation and importantly, the regulation of activities of private actors. Now the court consider that each injured state may separately invoke the responsibility of every other state which has committed an intentionally wrongful act resulting in damage to the climate system and other part of the environment. And remember, this question was brought to the UN by Vanuatu, one of those low-lying States I mentioned earlier which could suffer very serious harm from climate change and rising sea levels. So, what did the ICJ conclude? The legal consequences of wrongful acts may include a duty of performance. So, get on and do what you're obliged to do. Take efforts to tackle climate change. A duty of cessation of the acts in breach of that duty and guaranteed a non-repetition. Importantly, and here I quote, full reparation to injured States in the form of restitution, compensation and satisfaction, provided that the general conditions of the law of State responsibility are met, including that are sufficiently direct and certain causal nexus can be shown between the wrongful act and injury. And of course, that's a pretty big because pretty big condition on the end there, isn't there? Breaking down potential remedies could be duty to make reparation. Could be restitution where it's possible to restore damaged ecosystem, pretty tough for the environment you thought. Compensation rather importantly, and satisfaction, which for these purposes, under international law means things like apologies, which may be less meaningful to the citizens of Vanuatu. So that's a big deal. I think that's the ICJ's opinion that there is an obligation on States and that there's potential compensation there was appended to the judgment. An advisory opinion by a US judge, Judge Cleveland, on the interpretation of treaties in the context of the duties under climate change and she said climate change resulting from human activity is an urgent existential challenge facing our planet and a quintessential global commons and collective action problem. It is essential that the law as it stands, she used the Latin be able to assist the international community in addressing this problem and what that means in plainer English is that the interpretation of investment instruments treaties that we all deal with must be informed by the State's obligations in respect of climate change under international law. So, even where the treaty doesn't mention stuff, or if it mentions ESG or environmental duties in a broad sense, Judge Cleveland says, given the duties on States, you've got to interpret State obligations and commitment of those treaties with that in mind.

So, drawing that together and answering the second part of Raj's question, a few thoughts on what this all means. Well, firstly, the ICJ opinion is not binding, but it is very likely to form the backdrop to State actions to address climate change. It's going to be on the desks of government ministers in all our countries. And those that haven't signed up the Paris Agreement because don't forget, they also said customary international law. So, it's going to be in the minds of governments and those acting in the sphere. When they're forming regulatory policy frameworks. And it's also going to be said to be relevant to States when defending changes, about changes those regulatory frameworks and what is said to be legitimate expectations by investors who come in to invest in this sort of environment against this backdrop. Bear in mind, the opinion says not only the States have the ability to regulate to address climate change, but a duty to do so, and that must surely impact the way we perceive State activities and their scope of regulation under treaties.

So, expect this to be cited by parties seeking to interpret existing treaties to argue for increased regulatory space to tackle climate change. And bear in mind, as I've mentioned many modern BITs already include references to environmental protections, the duty investors to comply with environmental protections. Indeed, some also require state to state, state to not to lower environmental protections in granting investment approvals. Could this also affect interpretation of domestic law? Well, possibly there's a nice one for scholars, but I think it could be something we see in due course if a State legal system considers that customary international law forms part of the domestic law of that State, then are you going to be looking at arguments that this view of customary international law from the ICJ impacts the application interpretation of domestic law as it applies in a contract? Will we see this argued in the context of *force majeure* provisions. For example, under certain national laws, so there are some thoughts. I hope you've learned something. I found it pretty interesting. I hope you found my attempt to explain to you somewhat interesting.

RAJ PANCHMATIA: Thank you. Thank you, Nick, and I think this was very helpful, and I think you summarised it so well, for everybody, and including for us, it was a crash course on the entire opinion. Thank you. Teck Wee, can I come to you on the next one and that is where and in what context might we see the next wave of climate change related investment arbitration?

TECK WEE TIONG: I think most of you would have been able to tell from the points that have been raised for discussion so far that a lot of the disputes are energy transition related disputes, and I would suggest that that remains or will remain the core of climate change related disputes moving forward, and that tracks the fact that energy transition is fundamental to addressing climate change. Right? Production of energy is one of the biggest sources of pollution, use of energy likewise. So, to my mind at least, energy transition disputes will remain quite a bit core of climate change related disputes moving forward, not just in the Investor- State space, but also in the commercial, the International Commercial Arbitration space where you see increasing investments in renewable energy projects, alternative sources of alternative energy sources projects. And as we all know, with any kind of energy project, there is a great potential for disputes. You do see some disputes around, say, development of green technology, licensing of green technology and so on, but I would venture to suggest that most of it would stay within the energy transition space.

RAJ PANCHMATIA: Thank you. I think this gives a lot of food for thought for a lot of lawyers here as to where to look for their next case. Dora, I will come to you next, and that's what kind of disputes have arisen and are expected to arise in relation to Fossil Fuel Investment?

DORA GRUNWALD: Yes. So, I think maybe two groups of claims that I've come across. One is, when a fossil fuel investors' license or operations are frustrated because of a retroactive cancellation or phase out or any other measure imposed on them, and the other is claims brought against the so-called carbon majors. So, starting with the first, Teck Wee already mentioned ***Rockhopper versus Italy***. That's a very well-known case where an Italian offshore drilling license was revoked and the Tribunals actually found in this case that this actually amounted to an expropriation and awarded €190,000,000 of damages, a fairly recent case, but in other cases the investors tend to lose. We mentioned RWE and Uniper we have been involved in a case in Wales involving a methane, a coal bed methane operation there again the Tribunal found that Wales had the right to not extent and not provide access under the license that the operator had. So typically, from the limited examples that I've given the often Tribunals uphold the State's right to regulate. In relation to the carbon majors, you might know that there was a study in 2013 finding that about 90 entities in the world account for more than two thirds of carbon emissions. So, these are the companies that we call the carbon majors. These involve private companies such as RWE, but also State owned companies like Coal India and Saudi Aramco, there have been cases brought against them again Teck Wee mentioned, Shell was ruled to reduce its emissions by 45%. This was overturned, but as far as I know, activists have taken this case to the Supreme Court. There is a case that I love. I'm sure you know some of you have heard about the Peruvian farmer who took RWE in Germany to court stating that there is a lake in the Andes, just above his farms in his city where he lives, which is melting. It's a glacial lake, and due to carbon emissions and climate change, there is a glacial melting and he found RWE, I don't know why RWE, one of the biggest emitters obviously to be liable and requested not reparation or damages, but just said RWE is about less than 1% but claim liable for all emissions in the world. So, should pay about 1% of the cost of avoiding this harm. It's interesting that the first court dismissed the case. But then on appeal, it was accepted, and there were even expert evidence and climate related projections and calculations made. And so, it's going through the courts. But there are several other cases against the carbon majors. And it's about the sort of responsibility of acting.

RAJ PANCHMATIA: Thank you. Thank you, Dora. It's very interesting as to how these cases go through and where they reach. Shumin, what have Singapore regulators done to guide the stakeholders and address potential disputes carbon credit market?

LIN SHUMIN: So, the two main things that the regulators have done, I think, to help us all along. The first is it's quite recent. Three months ago, in June 2025, there was national guidance for voluntary carbon markets that was released in Singapore. Basically, what it does is it gives a roadmap of how to use the carbon credits responsibly. Three key ideas.

First, companies should reduce their own emissions as much as possible. So, don't take the easy way out. Don't just buy the carbon credits. Try to reduce what you can first, and then the second principle is, if you still have leftover emissions then you can purchase carbon credits from other people. So first, get your house in order. Second, if you really can't, okay, you can buy the carbon credits. The third is, if you're really going to buy it, make sure you choose high quality, high integrity credits that follow international principles. So this guidance, I think, it sets the baseline and sets the expectations, so it provides clarity and that sense.

The second one, is this clarification on it's called corresponding adjustments. It's a bit of a technical concept under the Paris Agreement. So, this has relevance to India because I think just last month India signed its first Carbon Trading Bilateral Agreement with Japan. So, that's expected to enable carbon trading. So, it's going to become a topic that's of increasing relevance in India. So, under the Paris Agreement, when one country sells a carbon credit to the other, both sites must make a corresponding adjustment. So, what does this mean? Each country has their own registry of carbon credits. So if Ghana sells 500,000 credits to India, Ghana has to deduct 500,000 credits from its own registry. Singapore gets to add 500,000. Both countries submit the data. Just now, Nick mentioned the UN Framework of Convention on climate change. So both Parties submit that data to the UN, and then the UN reconciles the record. So that's a corresponding adjustment. When you buy, both sides have to tally things.

But that's only when the purchase is by a country. So, there's ambiguity over what happens when the credit is purchased by a company, not a country. Singapore, and I'm not really sure why, but Singapore has clarified that corresponding adjustments aren't required under Singapore's guidance, under Singapore. So, if it's a company. Singapore says you don't have to do that. This seems a bit odd to me, but it's helpful. And so far as there's clarity over the status if there's no corresponding adjustment when it comes to a company in Singapore. It's a bit technical, but I hope that helps.

RAJ PANCHMATIA: Thank you. This was helpful. Dora coming to you, what did investors complain about in the solar case in Europe? What were the key issues that the Tribunals considered and what decisions did they bring?

DORA GRUNWALD: Almost always they complained about the feed-in tariff regimes. And the cuts, the retroactive cuts to those tariffs. Spain was perhaps the most radical where we had a feed-in tariff system in which the government offer a certain amount of subsidy per produced electricity, kilowatt hour of electricity and this is offered often for a long period of time for 25 years. But as these systems became very successful and the subsidies became unsustainable, all these governments retroactively cut the level of subsidies. So, Spain not only cut the subsidies, but also actually overhauled the entire system and introduced reasonable return regimes through an entirely different concept. In Italy, the investors received three different options of different types of cuts that they could choose from. In Ukraine, there was a 15% to 25% cut which was not only a problem that the level of tariff was reduced, but also then Ukraine, the government often failed to pay for entirely, even for the reduced amount. So, they were very similar in terms of the measures that were introduced. Now, the Tribunals obviously have to decide on the liability issue, setting aside the jurisdictional questions, which, if anybody is following these further cases, it is becoming more and more complicated with the European Union intervening, but already on the liability question the Spanish case is provide a fascinating divergence in terms of outcomes, even though they are facing the same set of facts. Right? So at least in three cases, the Tribunals decided that Spain didn't breach its treaty obligations under the Energy Charter Treaty. In the rest of the cases, the Tribunal found that there was a breach, but then they were split in terms of what the investors legitimate expectations might have been. So, one half said that they were entitled to defeating tariff as they were stated in regulatory documents, and the other half said no, they were only entitled to reasonable return as diverse set out in other regulatory documents. So, that's already a big divergence and then in terms of the Quantum, of how they went about quantifying damages, of course, the feed-in tariff entitled to feed-in tariff side of the Tribunals the calculations were much simpler, right? You were offered this level of tariff, now you got a lower level of tariff. The difference is what? But you have to calculate. But the new regulatory system, the reasonable return system is in itself quite difficult to calculate what investors will earn over their 25-year period but there are differences even here. So, for example the date of valuation. Some early cases picked the date of valuation at the time of the breach. The more recent ones they have the exposed valuation, and these can make a very big difference in terms of the result

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in damages. I think another question where Tribunals were arriving at the very opposite conclusions was the question of regulatory risk? And this goes back to the liability question, was there any regulatory risk that the investors had taken when they made their investment, and what happened with this regulatory risk, now, did the State intervened? Did it increase or did it reduce? So, is it the regulatory risk lower in the counterfactual scenario and higher in the actual scenario or the other way around? And the Tribunals got completely opposite end of the scale. So, in ***9REN***, one of our cases the Tribunals decided that a 20% regulatory risk premium applies. In ***Nova Energy*** and another case, the Tribunal said that it's not right to say that there was regulatory risk in a system where the system itself offered stability and predictability. So, that's just about those cases. With respect to the other side, where the Tribunals decree that the investors were entitled to a reasonable return, it was even more complicated. Every outcome is different. How do you define the reasonable return? Was it a cost of capital of the company, or was it some sort of 7% return set out in certain documents? What do you apply? Is it the investor’s sunk coast? Or is it some hypothetical plan? So the result is a whole list of inconsistent decisions but at least mostly they agreed that the investors had some rights and those rights have been breached.

RAJ PANCHMATIA: Thank you. Thank you, Dora. Nick, wearing your commercial practice hat, in your experience from a commercial practice, as a Counsel and as an Arbitrator, how have you seen the climate change impact, commercially impact Commercial B2B businesses and claims and what trends do you expect in this area?

NICHOLAS PEACOCK: Yes, well, audience will have noticed there's a slight divergence in the scientific opinion being expressed on this panel as to what is or is not a climate change related dispute and Teck Wee and I can do that out in due course when Neeti sets this up as a debate. So, on my analysis, frankly I've been doing climate change related disputes for some time because I think the environment for energy claims, in particular in Europe, has been changed for quite a while. I was based in Asia for a number of years until 2012, when I went back to Europe and out in Asia, a lot of my bread and butter cases were oil and gas and conventional power cases. I get back to Europe, and frankly, the last ten years, the energy cases have not been so much oil and gas, although we still see plenty of that in London. But it's in relation to developments, maybe in Africa or the Middle East or somewhere, but within Europe, you get an energy case now, even if a good old fashioned contractual arbitration, it's more likely being renewals. So, what I've seen is the diet of energy arbitrations changing from a whole lot of oil and gas cases into disputes around wind, solar investment and the ramifications of how Parties can fall out at all points in the planning, development and exploitation of new energy. And also bearing in mind that a lot of the value in Europe in some of these projects is not necessarily in the energy and the price that you were selling to the grid.

But it can be in some of the subsidies and other collateral benefits that are being offered by States in order to promote this kind of investment. So, that's point one, I think in the way that my practice changed, and I think given the way the renewables market here in India has already developed, awful lot of solar, as we've seen, and then I think solar, small scale solar then combining and being mocked up by the bigger players that's going to generate a lot of disputes in the same way they did in Telcos when the smaller Telcos got mocked up by the big players. And, of course, now you've got some enormous conglomerates really investing heavily in this area. So I think you're going to see plenty of that in this market as well.

So that was one. Another real obvious theme was the solar supply chain crunch coming out of COVID when the Chinese factories in particular struggled to meet demand. And I had Clients including Clients from this part of the world when I was still in private practice, looking to bring disputes, try and get themselves up that waiting list to see if they could get their cells delivered sooner rather than later and every other aspect. I'm going to just summarize quickly because there's a lot that's come out, and that will come out. And as I said earlier, when these projects are put together and when they fail or when they get cold or when they get impacted by regulatory change, you, of course, see fall out across the contractual matrix, across the suppliers, the joint venture parties and the funders. So, I think there's a direction of travel there in commercial claims leaving aside all the other interesting stuff we've been talking about in terms of treaty claims and how state obligations are changing, where we might see that part of the practice changing. So, on my analysis Teck Wee I think, quite a bit. I think there's a lot of change.

RAJ PANCHMATIA: Thank you. Thank you, Nick. We have very little time and very few seconds left. So, I'm going to ask one question to all our panelists where do you see arbitration going in the climate change era will we see specialised climate Arbitration centres or Tribunals or perhaps new rules to deal with the complexity and urgency of climate disputes? I'll start with Shumin.

LIN SHUMIN: I was going to say the former, I was going to say I had written down exactly. I think we're going to see some specialised climate Arbitration centres just because the sort of topic is nascent and it's so unique, but that's where I put my money.

NICHOLAS PEACOCK: I think others should go first. I've spoken too much. Well, okay, then, the benefit of being cantankerous, I think this is business as usual. So, I think we might well see institutions try to push towards specialist panel, specialist rules. Some have already looked to do it, but I think actually that might mislead us all into thinking that this is something new that needs special skills of course, if you're going to choose Arbitrators or anyone else to help you, Experts and lawyers, you're going to want somebody to have had a bit of experience in this sector. But bear in mind, it's a nascent sector. So, once it experience, twice as expertise. I think this is a sort of area we all need to get involved in. We all need to get our heads around. And to the extent that you haven't been doing climate change disputes, which you may have been on my analysis. Don't forget to send you haven't. Now is the time to start, and I think institutions should be treating us as business as usual and saying that all these cases fall under the same bucket we've done so far and we can deal with it now and you should keep doing what you've been doing to date.

RAJ PANCHMATIA: Dora?

DORA GRUNWALD: Yeah. No, I agree with Nick. I think we are not quite clear still what cases belong under climate change so that would be the first hurdle. But generally, I also think that mostly they can be tackled with our existing skills and perhaps with a little extra from climate change specialists, but no need for a specialised court or Tribunal.

RAJ PANCHMATIA: Teck Wee?

TECK WEE TIONG: There are already existing rules dealing with climate change disputes. So, you have the PCA Environmental Rules in 2001. You have to Hague rules on resolution of climate, environment related disputes. In 2019, ICC issued guidelines on how to manage environmental related disputes within the framework of the existing ICC Rules, as the rest of the panelists are suggest. And if we draw lessons from these rules that have been issued. There are two main features that I think these rules try to address. The first, is the need for specialized knowledge to deal with climate related disputes, which tend to be technical, scientific, not just in terms of the Arbitrators but also in terms of the experts who are called upon to testify at these sorts of disputes. A lot of the global conversation around the adequacy of measures to deal with climate change, emphasise the scientific, science based approach. Right? You hear that a lot at UN conferences. The science-based approach and that translates into what? You need the expertise that you need to resolve dispute. That's the first. The second is by far, in my personal view, far more interesting, which is that unlike traditional disputes. There is a very strong public interest element in climate change disputes, and this has brought to far the question of third-party participation in climate change related arbitrations, disputes not just in terms of state to state, investors to state, but even as between businesses, right there is a very strong public interest element in energy, the use of energy, clean energy. How they're being produced the impact on surrounding communities, so on and so forth. So, a lot of these rules, like the PCA rules, The Hague rules make special provisions for third party participation. And there is some comment on that in the ICC guidelines, environmental disputes as well. So those, I think if there were ever to be more rules specific to climate change disputes, those would be the two things that I think those rules will focus on.

RAJ PANCHMATIA: Thank you. Thank you to all of you, we have completely ran out of time. Thank all my panelists who have really brought in so much insight and thought provoking contribution to this panel. I've definitely learned a lot. For me, it was a crash course on ESG. So thank you so much, and please join me in thanking all my panelists.

NICHOLAS PEACOCK: I definitely learned a lot myself. That was fantastic.

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